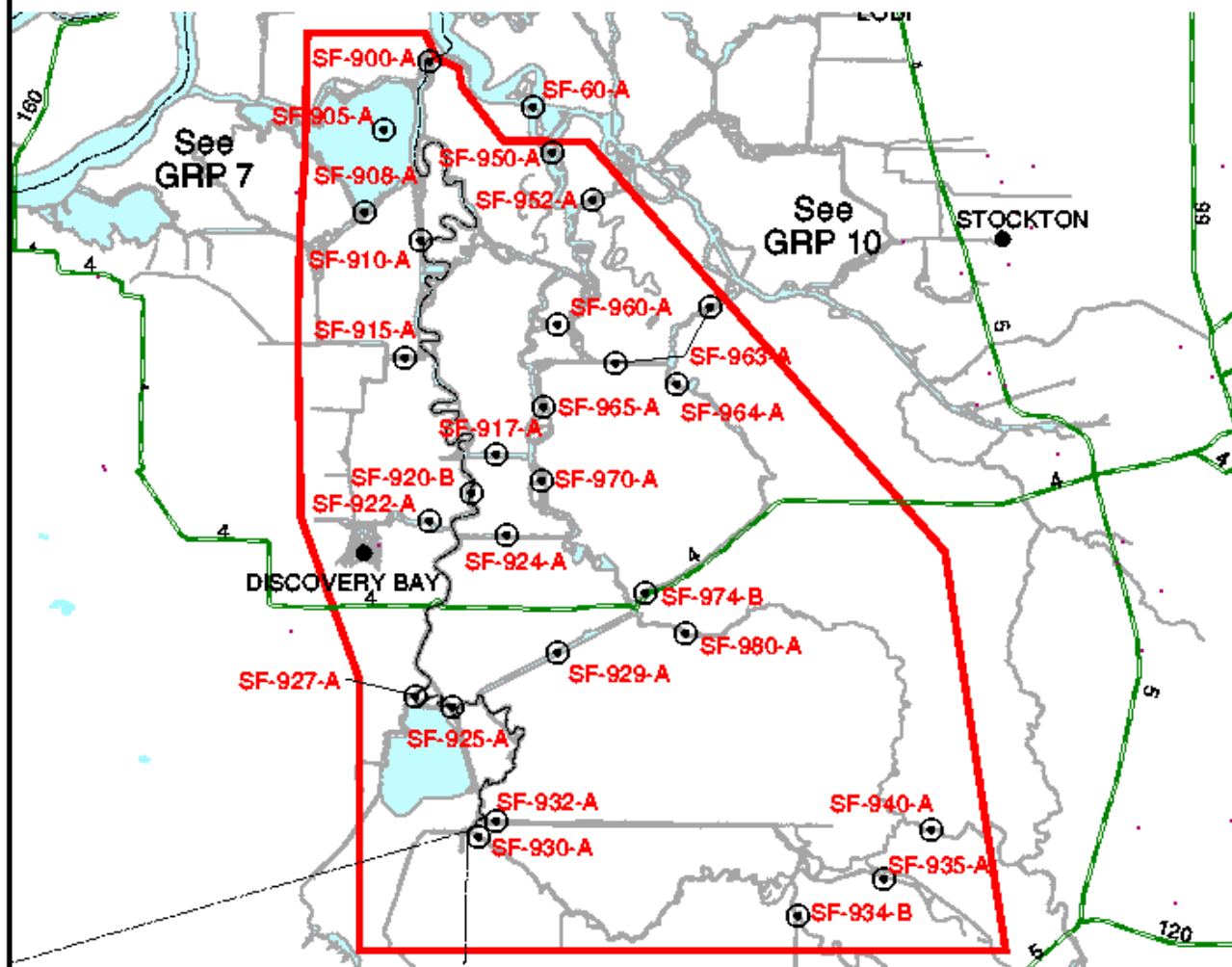




# SF Geographic Response Area 9 South Delta - Old River & Middle River to Tracy Environmentally Sensitive Sites



Note: Marker symbols (⊙) are only site reference and do not indicate full extent of sites.

# Geographic Response Plan - 9

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## GRP 9 Site Index/Response Actions

Site ID	Priority	Site Description	Assignment	Date/Time Required	Date/Time Completed
SF-900		Old River Mouth at San Joaquin River			
SF-905		Franks Tract Complex			
SF-908		Sand Mound Slough			
SF-910		Old River: Quimby Island Complex			
SF-915		Rock Slough			
SF-917		Railroad Cut			
SF-920		Old River: Orwood Reach			
SF-922		Indian Slough			
SF-924		Woodward Canal			
SF-925		Old River: Coney Island Reach			
SF-927		Widdows and Eucalyptus Islands			
SF-929		Victoria Canal			
SF-930		Old River: Fabian Tract Reach			
SF-932		Grant Line Canal (West)			
SF-934		Tom Paine Slough			
SF-935		Paradise Cut			
SF-940		Old River, Stewart Tract Reach			
SF-950		Middle River, Mandeville Reach			
SF-952		Columbia Cut			
SF-960		Mildred Island/Latham Slough			
SF-963		Turner-Empire Cut			
SF-964		Whiskey Slough			
SF-965		Middle River: Bacon Island Reach			
SF-970		Middle River: Upper Jones Tract			
SF-974		Trapper Slough			
SF-980		Middle River: Union Island Reach			

# ACP Sensitive Site Resource List - GRP 9

SITE	SUB	SITENAME SO	Strategy Objective	HBOOM	SWBM	XBOOM	SORB	Bboat / skiff	# / Type Skimmer	Special Equipment	Deploy Personnel
2-900	. 1	Old River Mouth at San Joaquin River	2000	200		2200	2/1	1	portable &		8
		5,6	Stop oil from entering or leaving Old River at the mouth. Wind wash and strong currents can be a problem.								
2-905	. 1	Franks Tract Complex	0	0	0	0	0	0	0		
			no strategy has been developed for this site.								
2-908	. 1	Sand Mound Slough	0	0	0	0	0	0	0		
		5	Exclude oil from site by executing adjacent strategies. If oil is coming from the San Joaquin River, prevent oil from entering slough and marsh habitat.								
	. 2	Sand Mound Slough	3000				2-4				4-20
			For oil coming from Bethel Island area marinas, prevent oil from contaminating marsh habitat.								
2-910	. 1	Old River: Quimby Island Complex	1000				1 / 2	1			6-10
		5	Prevent oil from moving downstream (northerly) into this reach of Old River using exclusion boom.								
	. 2	Old River: Quimby Island Complex	400				1 / 0				6-10
			Prevent oil from moving upstream (southward) with the tide into Old River from Frank's Tract.								
2-915	. 1	Rock Slough	1000				1 / 1	0			6-8
		5	Prevent oil from entering Rock Slough at the confluence with Old River near Holland Riverside Marina.								
2-917	. 1	Railroad Cut	15000				4 / 8				20-40
			Prevent oil from entering the marsh.								
	. 2	Railroad Cut	500					1	SSS		
			Prevent oil from entering the marsh. Deflect to island levee for recovery.								
	. 3	Railroad Cut	800				1 / 0				4
			Prevent oil from entering marsh and channels from the east end of the site at Middle River.								
2-920	. 1	Old River: Orwood Reach	500				1/0	0			3
		5	Protect in-channel marsh islands from oil either coming up river or down river.								
	. 2	Old River: Orwood Reach	1200				1/1	1			6-10
		8	Protect in-channel marsh islands from oil. Recover oil in channel north of Indian Slough.								
2-922	. 1	Indian Slough	500				1 / 0	1	SSS		
		7	Protect slough from oil coming down Old River.								
	. 2	Indian Slough	1000				1/1	1	SSS		6-8
			Prevent oil from entering Island Slough from Old River. Recover oil near the confluence.								
2-924	. 1	Woodward Canal	1200				2 / 2				10
		5	Exclude oil from entering the canal and impacting marsh islands.								
2-925	. 1	Old River: Coney Island Reach	1500				2 / 1	1	SSS		9-12
		5	Exclude oil from moving into site; Deflect to shores for collection								
	. 2	Old River: Coney Island Reach	300				1 / 0				3
			Prevent oil from entering Clifton Court Forebay.								
2-927	. 1	Widdows and Eucalyptus Islands	800			800	1/1				3-4
		5	Prevent oil from entering Widdows Island.								
	. 2	Widdows and Eucalyptus Islands	1500				2/0	1	SSS		8
		5	Prevent oil from reaching both islands.								
	. 3	Widdows and Eucalyptus Islands	550			250	1/1				3-4
		5	Prevent oil from entering Eucalyptus Island								
2-929	. 1	Victoria Canal	0	0	0	0	0	0		See SF-925-A and SF-927-A strategies.	
			West end of canal: Keep oil out of marsh areas located in middle of canal.								
	. 2	Victoria Canal	800				1 / 0	1	SSS		4-6
		5,6	Exclude oil and stop spread when oil threatens from east end of canal.								
	. 3	Victoria Canal	0	0	0	0	0	0	0	See SF-925.03-A	
			Prevent oil from entering Clifton Court Forebay.								
2-930	. 1	Old River: Fabian Tract Reach	500				1 / 1	1-2	SSS		8-10
		5,6	Divert and collect oil at the river confluence at Hammer Island.								
2-932	. 1	Grant Line Canal (West)	1000				2 / 1	1	SSS		6
		5,6	Prevent oil moving up Old River from entering Grant Line Canal.								
2-934	. 1	Tom Paine Slough	0	0	0	0	0	0	0		
			NO STRATEGY HAS BEEN DEVELOPED.								
2-935	. 1	Paradise Cut									
			No strategy or response information has been developed.								
2-940	. 1	Old River: Stewart Tract Reach	0	0	0	0	0	0	0		
			NO STRATEGY HAS BEEN DEVELOPED.								
2-950	. 1	Middle River, Mandeville Reach	1700			2000		3	SSS		4 PERSON/2
		5,6	Stop oil from entering or leaving Middle River at the mouth. Wind wash and strong currents can be a problem.								
	. 2	Middle River, Mandeville Reach	1500			1500	2/1				USE ABOVE
		5	Keep oil from entering or leaving Middle River via Latham Slough / Mildred Island open water.								
	. 3	Middle River, Mandeville Reach									
		5	Exclude at south end, if oil is coming from the Mildred Island area.								
2-952	. 1	Columbia Cut	1000			2000	0/2				4
		5	Stop oil from entering or leaving Columbia Cut at the mouth (at San Joaquin R).								
	. 2	Columbia Cut	900			900	1/1				5
		5	Keep oil from entering or leaving Middle River via Columbia Cut.								
	. 3	Columbia Cut	1500					1	portable & VT		USE ABOVE
		5,6	Backup strategy for Head Reach end: exclude and divert for collection, under prevailing wind and current pattern.								
	. 1	Columbia Cut	1000			2000	0/2				4
		5	Stop oil from entering or leaving Columbia Cut at the mouth (at San Joaquin R).								
	. 2	Columbia Cut	900			900	1/1				5
		5	Keep oil from entering or leaving Middle River via Columbia Cut.								
	. 3	Columbia Cut	1500					1	portable & VT		USE ABOVE
		5,6	Backup strategy for Head Reach end: exclude and divert for collection, under prevailing wind and current pattern.								
2-960	. 1	Mildred Island/Latham Slough	0	0	0	0	0	0	0		
			Prevent oil from entering marshes and waterways of this site by executing adjacent strategies.								
2-963	. 1	Turner-Empire Cut	600			300					2 PEOPLE/ 1 SKIFF
		5,6	At San Joaquin River: Stop oil from entering or leaving slough mouth.								
	. 2	Turner-Empire Cut	1200					1	portable & VT		4 PEOPLE/ 2 SKIFF
		5,6	If oil is threatening from south, exclusion boom at junction with Latham Slough at Mildred Island.								
	. 1	Turner-Empire Cut	600			300					2 PEOPLE/ 1 SKIFF
		5,6	At San Joaquin River: Stop oil from entering or leaving slough mouth.								
	. 2	Turner-Empire Cut	1200					1	portable & VT		4 PEOPLE/ 2 SKIFF
		5,6	If oil is threatening from south, exclusion boom at junction with Latham Slough at Mildred Island.								
2-964	. 01	Whiskey Slough	400			300	0/1				2 PEOPLE/ 1 SKIFF
		5	Stop oil from entering or leaving the slough by exclusion booming. Divert any oil to shore for collection and skimming.								
	. 1	Whiskey Slough	400			300	0/1				2 PEOPLE/ 1 SKIFF
		5	Stop oil from entering or leaving the slough by exclusion booming. Divert any oil to shore for collection and skimming.								
2-965	. 1	Middle River: Bacon Island Reach	600				1/1	1	SSS		4-5
		5	North end: Prevent oil from entering the river and contaminating the marshes								
	. 2	Middle River: Bacon Island Reach	2000	600			3/2	2	SSS		16-18
		5	South end: Prevent oil from entering the river and contaminating the marshes								

SITE SO	SUB	SITENAME Strategy Objective	HBOOM / skiff	SWBM	XBOOM	SORB	Bboat	# / Type	Skimmer	Special Equipment	Deploy Personnel
2-970	. 1	Middle River: Upper Jones Tract 5 North End: prevent oil from contaminating in-channel marshes	2000				2 / 1	1	SSS		8-10
	. 2	Middle River: Upper Jones Tract 5 South End: Prevent oil from contaminating in-channel marches.	2000				2 / 1	1	SSS		12
2-974	. 1	Trapper Slough 5 Prevent oil from entering slough	0	0	0	0	0	0	0		
2-980	. 1	Middle River: Union Island Reach Deflect oil away from in-channel islands and marshes	400				1 / 1	1	SSS		5-6

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# Old River Mouth at San Joaquin River - Site Summary

2-900 -A

**County:** Contra Costa / San Joaquin  
**USGS:** Bouldin Island

**GRP: 9**      **Latitude** 38 04.4 N      **Longitude** 121 34.3 W  
**OSPR Map:** 169      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

Site is from intersection of Old River and Deep Water Channel at 53 to Frank's Tract. This mile long section of Old River is wide and deep with berm islands paralleling ripped levees. The berm islands are vegetated with emergent marsh and scrub shrub, particularly at mouth. Waves and currents can be strong here.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

Marsh area is of "A" priority at all times. From September to December there are modest numbers of Delta smelt (F/CT) in this area. Rare plants occur nearby.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

This area has been designated as a Significant Natural Area (DFG-NHD). The main ecological values in this site are the berm islands, particularly at the mouth, and the access to sites in Frank's tract and south. Aquatic environment supports diverse freshwater community.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Bird species which occur here are typical waterfowl and marsh birds. Other vertebrates are typical aquatic and semi-aquatic mammals, reptiles and amphibians of the delta. This area has modest occurrence of Delta smelt during fall/winter. Juvenile and adult striped bass are typical as are warm water species.

Several Special Status Species occur near but have not been recorded in this site including: Mason's lilaeopsis, Delta tule pea, Delta mudwort, California hibiscus and Suisun marsh aster.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
OEL	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
TB	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
E	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

# 2-900 -A Old River Mouth at San Joaquin River - Site Strategy

County: Contra Costa / San Joaquin CHART 18661 Sacramento & San Joaquin River

Latitude  
38 04.4 N

Longitude  
121 34.3 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

Site is from intersection of Old River and Deep Water Channel at 53 to Frank's Tract.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Aerial traffic beware of power wires. Shallows at margins.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

## SITE STRATEGIES

### Strategy 2-900.1

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Stop oil from entering or leaving Old River at the mouth. Wind wash and strong currents can be a problem.

### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

1) Set an exclusion-diversion boom across the mouth at a diagonal to land oil on the Mandeville levee. Anchor one end near the Webb Tract tip and set 1500' of 12X12 diagonally to anchor the other end near the Mandeville levee. Leave a trailing boom length to maintain seal during tidal vacillations.

2) Set 200' of 4X4+ exclusion boom across mouth of slough parallel to the above boom. Anchor one end near the tule island tip and anchor the other near the Mandeville levee. Back with sorbent.

3) multiple layers may be necessary to bread the chop: repeat (step 1) as necessary.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-900.1	2000	200		9/25/ & 2/15/danforths,	2200	2/1	portabale & VT	1	8	2	5,6

## LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Key access to site is by boat, from Stockton Deep Water Channel at R53 from marinas at Mokelumne. Vehicle access is very restricted: private levee roads via convoluted routes: Hwy 4 to Jersey Island Rd to private ferry to Webb Tract and Hwy 4 to acon Island Rd to Bacon Isl. to Mandeville Island.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
LEVEE ROADS ARE GOOD WHEN DRY

### WATER LOGISTICS:

Access limitations: depth, obstructions: deep draft, except near shore

Boat Launching, Loading, Docking Nearest boat launch and marine service is at the mouth of the Mokelumne. Additional marine and Services Available: facilities are at Bethel Island or 8-mile road.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good deployment sites and facilities are at marinas above: rental boats, fuel, restaurants, water, and some camping and lodging. Consider the Mokelumne mouth as an area deployment site.

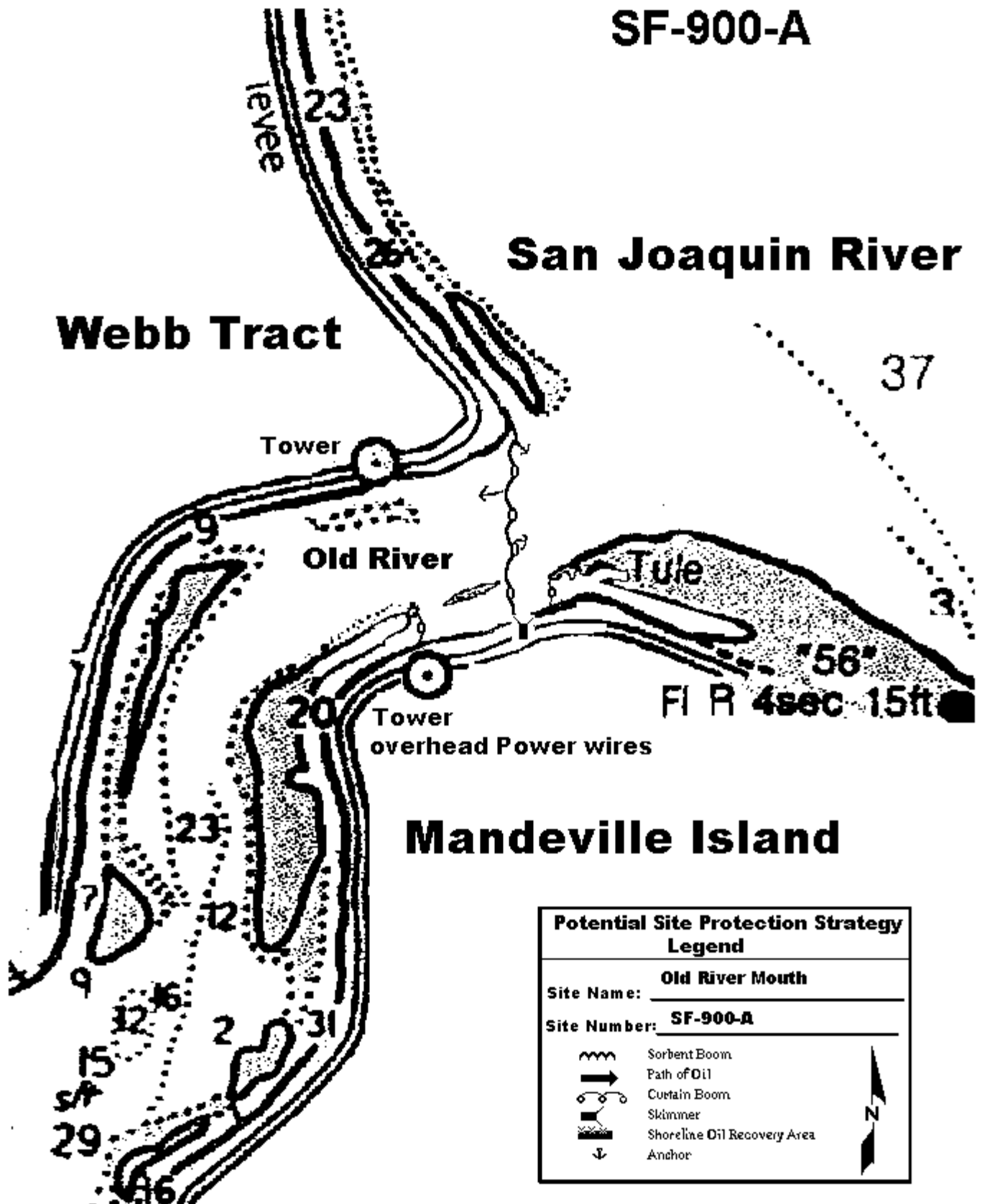
### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS



SF-900-A



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# Franks Tract Complex - Site Summary

2-905 -A

**County:** Contra Costa  
**USGS:** Bouldin Island

**GRP: 9**      **Latitude** 38 02 N      **Longitude** 121 36' W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

Franks Tract is a submerged 3,507 acre island with only 300 acres remaining above water. It is located at the intersection of Piper Slough to west, False River to north, Old River to east, Sand Mound Slough to south. The flooded island is surrounded by broken levee remnants and berm islands of bordering waterways. Some of the tract can be seen from the levee road on Bethel Island and the Holland Tract. This is a Delta Master Recreational Plan (DMRP) designated scenic area.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

This site has "A" level sensitivity throughout the year.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

This is an open water environment with surrounding marshy islands, supporting a open water and freshwater marsh system.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Waterfowl, marsh birds.

Mammals associated with freshwater marsh areas, including otters and beavers.

These are all T&E spp: Mason's Lileopsis (CR), delta tule pea, Suisun marsh aster

### **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-905 -A Franks Tract Complex - Site Strategy

County: Contra Costa

CHART 18661 Sacramento & San Joaquin River

Latitude  
38 02 N

Longitude  
121 36' W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Franks Tract is a submerged 3,507 acre island with only 300 acres remaining above water. It is located at the intersection of Piper Slough to west, False River to north, Old River to east, Sand Mound Slough to south.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins. Aircraft beware of power lines.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

No Strategy has been developed. This site has many resources, including marshy island around the perimeter, and is a part of the path for potential spread of oil.

## SITE STRATEGIES

### Strategy 2-905.1

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

no strategy has been developed for this site.

### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

Execute adjacent strategies to exclude flow into and out of the site.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-905.1	0	0	0	0	0	0	0	0	0 0			

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Highway 4 to Bethel Island area. Closest launch ramp is Delta Resort.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
no limitations to Bethel Island, other Islands have only dirt tracks.

### WATER LOGISTICS:

Access limitations: depth, obstructions: There are a few shallows and obstructions.

Boat Launching, Loading, Docking and Services Available: Bethel Island marinas. Closest launch ramp is Delta Resort.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging at fire station in Bethel Island.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# No Strategy Diagram or Map

# Sand Mound Slough - Site Summary

2-908 -A

**County:** Contra Costa  
**USGS:** Bouldin Is, Woodward Is, Bethel Is

**GRP:** 9      **Latitude** 38 00 N      **Longitude** 121 37 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

Bounded by Franks Tract on the north, Dutch Slough on the west, Rock Slough on the south, and the levee of Holland Tract on the east. The slough has extensive mid-channel marsh islands and emergent vegetation. West side levees of Bethel Island are developed with residences and marinas with docks. East side levees of Holland Tract are undeveloped and covered with rip-rap.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

Site is an "A" priority for protection all year due to extensive marsh islands and wildlife.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

The habitats of particular concern are the tule marsh and riparian vegetation habitat types.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Heron, egrets, songbirds, raptors, migratory waterfowl in fall and winter.  
Winter-run Chinook salmon (CE, FE), striped bass, largemouth bass, channel catfish  
Suisun marsh aster, Mason's Lilaeopsis (CR)

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
E/L	John Gennrich	Bethel Island MID	(510) 254-7238	
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
E/L	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
B/T	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
L/O	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
E/L	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
L/O	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E/L/O	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

## 2-908 -A Sand Mound Slough - Site Strategy

County: Contra Costa

CHART 18661 Sacramento & San Joaquin River

Latitude  
38 00 N

Longitude  
121 37 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Bounded by Franks Tract on the north, Dutch Slough on the west, Rock Slough on the south, and the levee of Holland Tract on the east.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Hazards are shallow water throughout the site, and overhead power lines near slough.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported through this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats. Avoid trampling of marsh and mudflats and avoid in-channel activity from October 15 through May 31 due to the presence of salmon.

## SITE STRATEGIES

### Strategy 2-908.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/08/1995 07/01/1996

#### Objective or Prevention Condition

Exclude oil from site by executing adjacent strategies. If oil is coming from the San Joaquin River, prevent oil from entering slough and marsh habitat.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy strategies for False River, Taylor Slough, Franks Tract (SF-905-A), and Dutch Slough.

### Strategy 2-908.2

(USCG Strategic Objective: 8 )

Dates: SISRS Approved last tested ACP date  
11/08/1995 07/01/1996

#### Objective or Prevention Condition

For oil coming from Bethel Island area marinas, prevent oil from contaminating marsh habitat.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Recover oil by on-water skimming or deflect it to a levee for shoreline cleanup. Calm water marinas may also be used as recovery areas provided adequate exclusion and containment booms can be deployed. Line marsh islands with 4x4 boom or sorbent boom.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-908.1	0	0	0	0	0	0	0	0	0 0			5
2-908.2	3000				2-4					4-20	continuous	

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Take Hwy 4 east to Oakley, to Cypress Road east to Bethel Island Road. Follow to Bethel island or turn right on Sand Mound Slough Road.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
All types on Bethel. Private levee roads on Holland Tract

### WATER LOGISTICS:

Access limitations: depth, obstructions: Shallow at head of slough

Boat Launching, Loading, Docking and Services Available: Several launch facilities and marinas throughout slough and Bethel Island.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Several on Bethel Island and also levee of Holland Tract.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:







X No Problems Radio Pager Cell phone


### ADDITIONAL COMMENTS

**Potential Site Protection Strategy Legend**

Site Name: **Sandmound Slough**

Site Number: **SF-908-A**

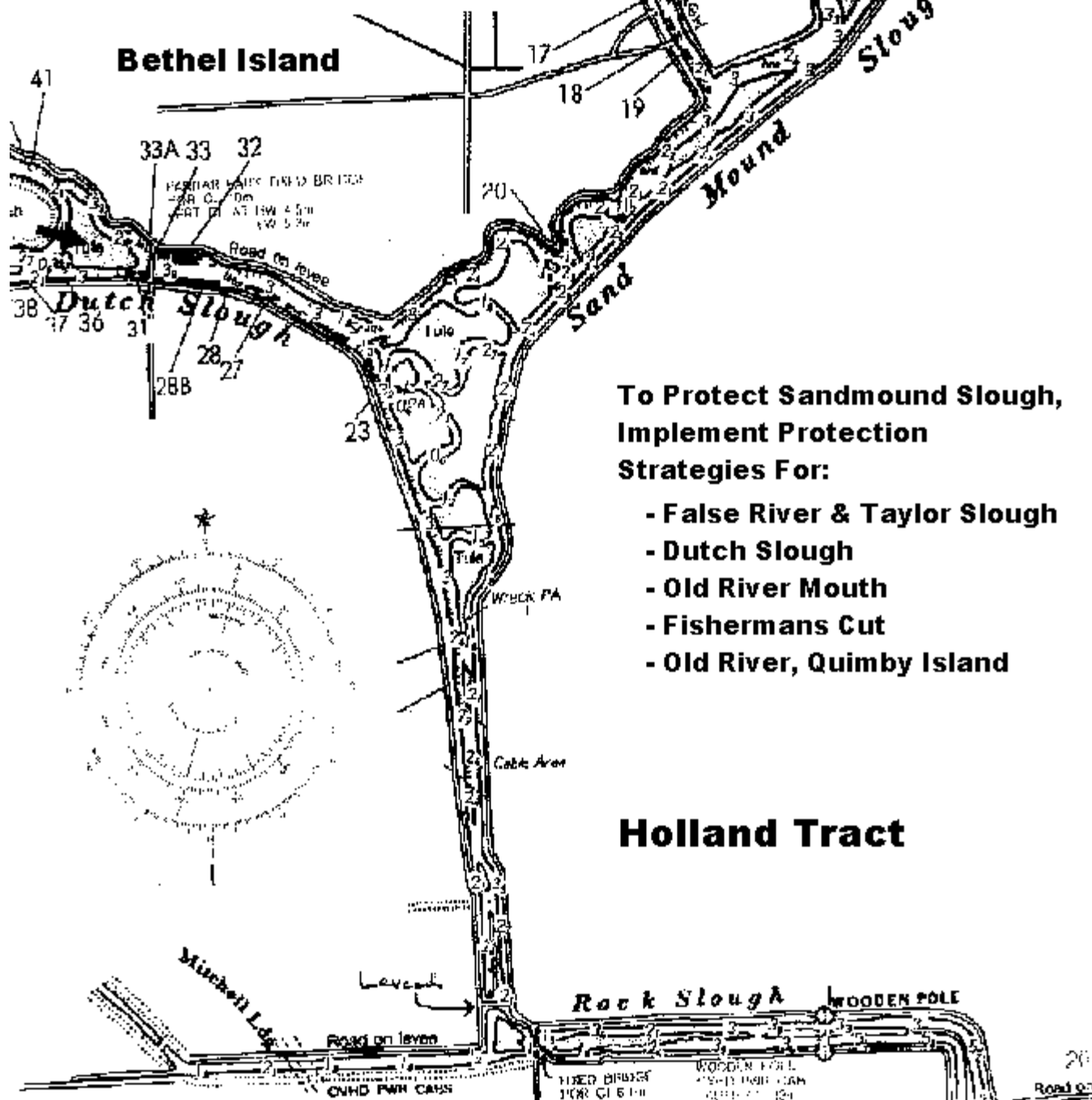
 Sorbent Boom  
 Path of Oil  
 Curtain Boom  
 Skimmer  
 Shoreline Oil Recovery Area  
 Anchor



# SF-908-A

Frank's Tract  
(open water)

Irish Ldg



**To Protect Sandmound Slough,  
Implement Protection  
Strategies For:**

- False River & Taylor Slough
- Dutch Slough
- Old River Mouth
- Fishermans Cut
- Old River, Quimby Island

## Holland Tract

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# Old River: Quimby Island Complex - Site Summary

2-910 -A

**County:** San Joaquin

**USGS:** Woodward Island and Bouldin Island

**GRP:** 9

**Latitude** 37 56 N

**Longitude** 121 34 W

**OSPR Map:** 169, 171

**Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This area is a complex of reclaimed and marshy berm islands bordered by Mandeville Island, Franks Tract, Holland Tract, Palm Tract and Bacon Island. It includes Connection Slough, Old River, Sheep Cut, Holland Cut and other unnamed side channels. This complex of islands has a diverse mix of upland habitat, agricultural lands, riparian woodlands, and shrub-brush communities.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

This site has "A" level sensitivity all year. Sensitive species and marshes are present throughout the year.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

The site is emergent marsh throughout and provides excellent wildlife habitat, especially for raptors. All islands, except Quimby Island, are designated as natural areas by Delta Master Recreation Plan. Sloughs are designated as scenic areas. In-channel tule marsh islands are at risk.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

The complex of islands provides excellent habitat for raptors and migratory waterfowl. Clapper rails, herons, songbirds, cormorants, and waterfowl are found at the site.

River otter, beaver, muskrat, western pond turtles, and red-eared slider turtles are found here.

Several species of fish are found at the site, including delta smelt (CT/FT), winter-run chinook salmon (CE,FE), striped bass, largemouth bass, and catfish.

Special Status Species found here include Mason's Lilaeopsis (CR), delta tule pea, and California hibiscus. In addition, tules, cattails, and willows are common.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
ELO	John Gennrich	Bethel Island MID	(510) 254-7238	
BT	Kathy Hieb	Ca Dept of Fish and Game, Bay/Delta	(209) 942-6078	
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
ELO	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
ELO	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

# 2-910 -A Old River: Quimby Island Complex - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 56 N

Longitude  
121 34 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This area is a complex of reclaimed and marshy berm islands bordered by Mandeville Island, Franks Tract, Holland Tract, Palm Tract and Bacon Island. It includes Connection Slough, Old River, Sheep Cut, Holland Cut and other unnamed side channels.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported through this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

## SITE STRATEGIES

### Strategy 2-910.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Prevent oil from moving downstream (northerly) into this reach of Old River using exclusion boom.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

At the southern end of the site at Old River and Railroad Cut:

- Deploy exclusion boom across the two channels of Old River which flow downstream (northward) with 400-500 ft. of curtain boom ( $\leq 18"$ ). In the west side channel, deflect to the western shore and place a skimmer in the pocket.
- Deploy 250 ft of deflection curtain boom ( $18"$ ) across the north channel of Railroad Cut. Deflect oil to the levee of Bacon Island.
- Boom the two small channels north and west of Railroad Bridge (next to house) with 100 ft. each of curtain boom ( $18"$ ). The current flow is slow here and mainly wind effects are present.

### Strategy 2-910.2

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Prevent oil from moving upstream (southward) with the tide into Old River from Frank's Tract.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

At the north end of the site at the confluence with Frank's Tract, deploy  $18"$  deflection curtain boom. To take advantage of the eddies, deploy 200 ft of boom from the dock inside the Old River channel, and 200 ft at Sandmound Slough near the point of land at the confluence with Old River. Skimmers and vacuum trucks can be operated from the Holland Tract levee road. Deflect oil to the Holland

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-910.1	1000			8-10 / 25-40lb Danforth		1 / 2			1	6-10		5
2-910.2	400					1 / 0				6-10		

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to the site is from Highway 4 to Knightsen Road in Knightsen, to Holland Tract Road, to Holland Riverside Marina where the launching facilities are located. Shoreline access Highway 4 to Trapper Rd. on Upper Jones Tract to Bacon Island Rd. across bridge to Bacon Island's levee Rd.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
Levee roads support all types of transport

### WATER LOGISTICS:

Access limitations: depth, obstructions: NONE

Boat Launching, Loading, Docking and Services Available: Boat launching facilities are available in and around Frank's Tract and at Sandmound Slough.






### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Facilities and deployment sites can be found/located at Frank's Tract marinas.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

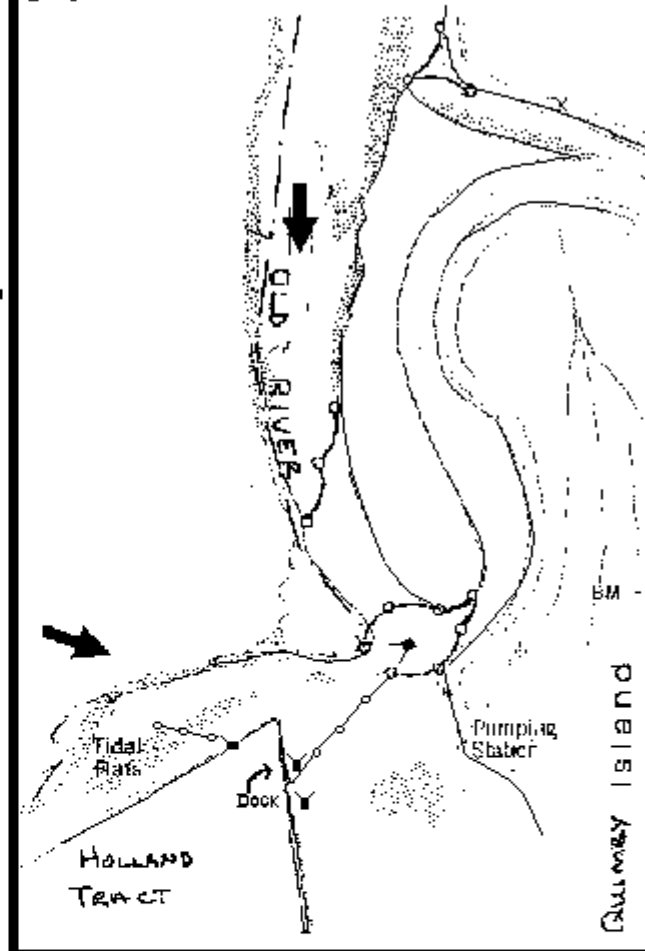
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### ADDITIONAL COMMENTS

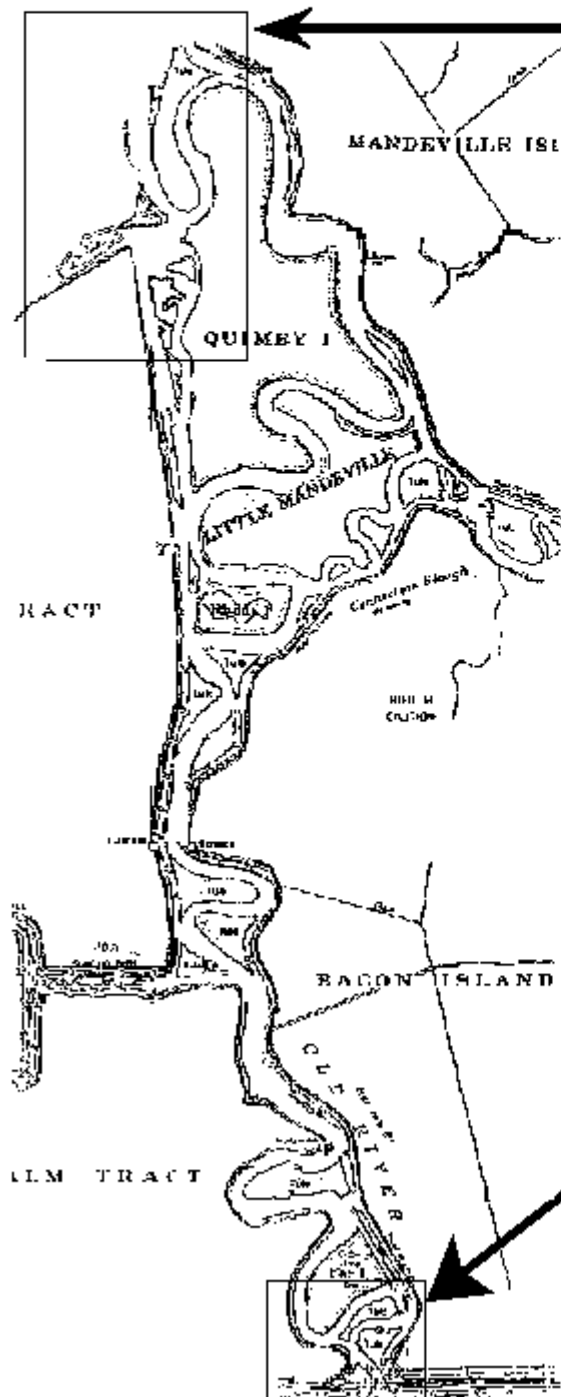
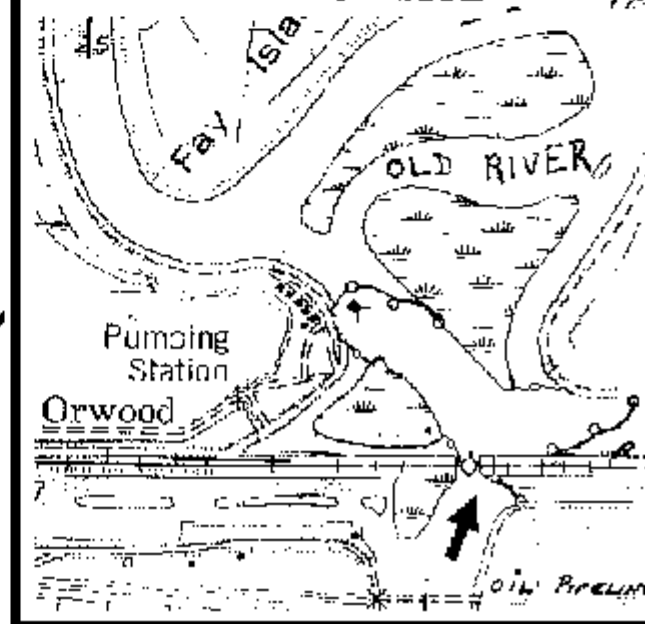
Potential Site Protection Strategy Legend	
Old River - Quimby Island Complex	
Site Name:	
Site Number:	<b>SF-910-A</b>
	Sorbent Boom
	Path of Oil
	Curtain Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor

# SF-910-A

## NORTH END OF SITE



## SOUTH END OF SITE



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# Rock Slough - Site Summary

2-915 -A

**County:** Contra Costa  
**USGS:** Woodward Island

**GRP:** 9      **Latitude** 37 56.0 N      **Longitude** 121 34.0 W  
**OSPR Map:** 171      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site contains all of Rock Slough from the confluence with Old River at the southeastern tip of Holland Tract to the Contra Costa Canal on the west to the Railroad bridge to the south. This slough contains berm islands throughout its length with emergent marsh vegetation and shrubby riparian growth along the banks. There is also a Contra Costa Water District intake in this reach.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

This site has "A" sensitivity throughout the year. Contra Costa Water District intake is located at the terminus of the slough.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

The marsh and riparian habitats are at risk.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Raptors, waterfowl, herons, egrets and songbirds are found in this area.  
River otter, western pond turtles, and muskrat are found here.  
California hibiscus, a Special Status Species, is found here as are tules.  
Willows are common.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
ELO	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
ELO	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

## 2-915 -A      Rock Slough - Site Strategy

County: Contra Costa

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 56.0 N

Longitude  
121 34.0 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site contains all of Rock Slough from the confluence with Old River at the southeastern tip of Holland Tract to the Contra Costa Canal on the west to the Railroad bridge to the south.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

## SITE STRATEGIES

### Strategy 2-915.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Prevent oil from entering Rock Slough at the confluence with Old River near Holland Riverside Marina.

### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy curtain boom (18") of varying length across all channels to Rock Slough and parallel to the current of Old River (see diagram).

Deflect and exclude oil from Rock Slough. Recover oil in Old River with skimmers.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-915.1	1000			8-12 / 25lb Danforth		1 / 1			0	6-8		5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access is from Highway 4 east to Oakley. Turn left (east) on Delta Road to Holland Riverside Marina.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
All transportation on paved levels. Limitations on some levees.

### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOW NEXT TO ISLANDS

Boat Launching, Loading, Docking Good boat launching ramps are available at the Holland Riverside Marina adjacent to the  
and Services Available: confluence of the slough and Old River.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

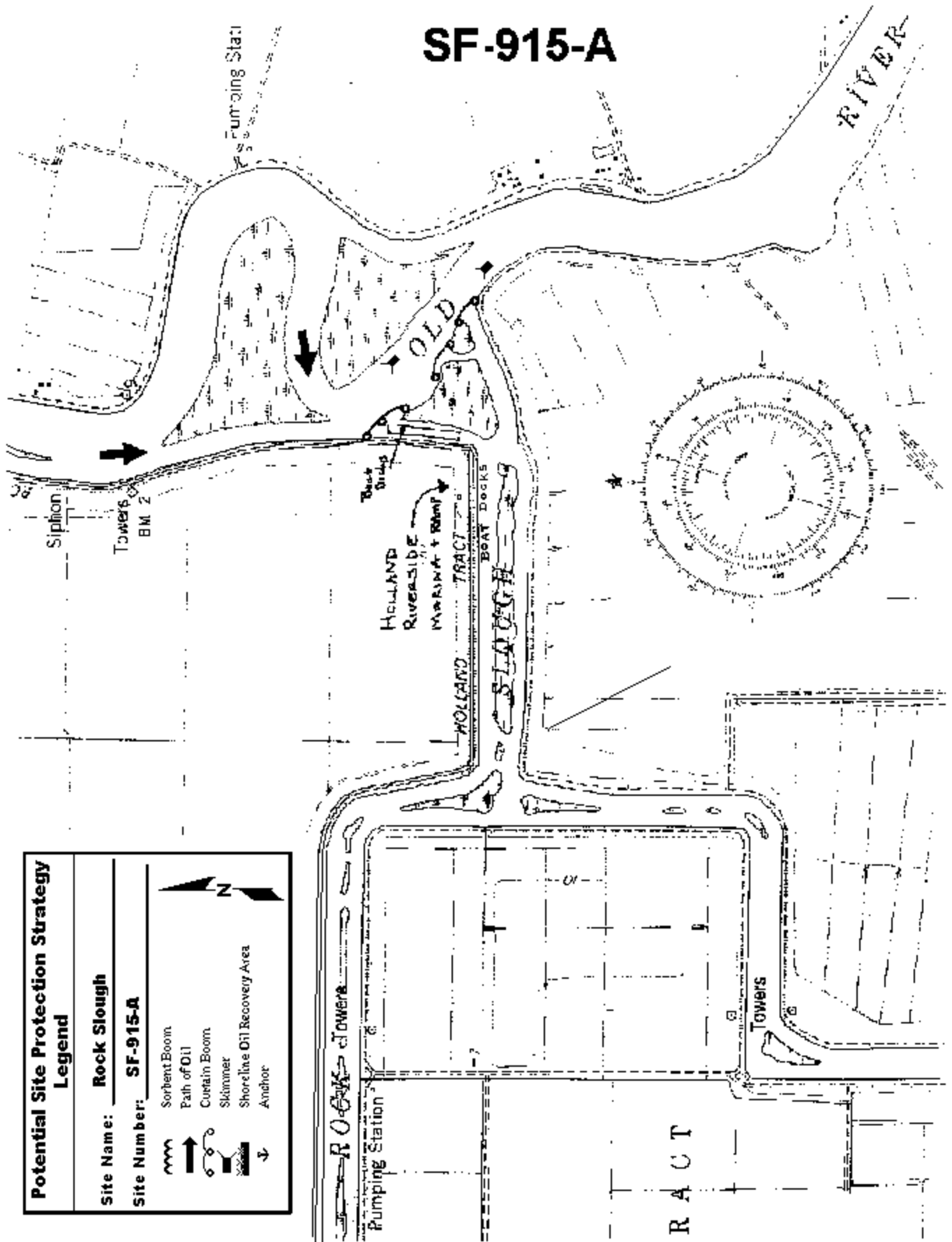
Facilities and deployment sites can be found/located at the Holland Riverside Marina.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# SF-915-A



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# Railroad Cut - Site Summary

2-917 -A

**County:** San Joaquin  
**USGS:** Woodward Island

**GRP:9**      **Latitude** 37 56.0 N      **Longitude** 121 31.0 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

Located between Bacon and Woodward Islands. This site is an artificial channel (approximately 1.5 miles long) on each side of the Union Pacific Railroad track connecting Middle and Old Rivers that resulted from the construction of an elevated railroad berm. At this site shallow waters engender emergent vegetation and marshy margins.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

Marshy habitats have "A" sensitivity year round.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

The freshwater marsh is at risk year-round. The site contains little to no upland habitat.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Red-winged blackbirds, sparrows, marsh wrens, and possibly Tri-color blackbirds are found in this area. River otter, beaver, turtles and muskrat, are possibly found here. Tules and cattails are common at the site.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
ELO	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
ELO	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

## 2-917 -A Railroad Cut - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 56.0 N

Longitude  
121 31.0 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Located between Bacon and Woodward Islands. This site is an artificial channel (approximately 1.5 miles long) on each side of the Union

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

## SITE STRATEGIES

### Strategy 2-917.1

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1996 01/01/1998

#### Objective or Prevention Condition

Prevent oil from entering the marsh.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Place sorbent boom or small curtain boom (swamp/4x4") along the marshfront edge. Boom marsh on both sides of railroad in each canal, effectively encircling the railroad island and fringing marsh.

### Strategy 2-917.2

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1996 01/01/1998

#### Objective or Prevention Condition

Prevent oil from entering the marsh. Deflect to island levee for recovery.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Depending on the oil trajectory, set deflections with 250 ft each of 18" curtain boom from the railroad marsh out to the island levees north and south of the railroad. Collect oil with a Shoreside Skimming System from the levees of Bacon or Woodward Island.

### Strategy 2-917.3

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1995 01/01/1998

#### Objective or Prevention Condition

Prevent oil from entering marsh and channels from the east end of the site at Middle River.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 400 ft of exclusionary swamp boom (4x4) or 18" across north canal, and 400 ft of exclusionary swamp boom or 18" across south canal. Due to the strong current in Middle River, boom can be laid out at almost a 90 degree angle from the RR, straight across the canal, but parallel to the river current.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-917.1	15000			many 20lb or stakes		4 / 8				20-40		
2-917.2	500			10 / 25lb Danforth			SSS		1			
2-917.3	800			10-12 / 25lb Danforth			1 / 0			4		

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

This site accessible by water by proceeding south from Frank's Tract vicinity down Old River to the Union Pacific railroad crossing, the west mouth of Railroad Cut. The adjacent levee of Bacon Island provides the nearest land access.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
Adjacent levees can support large truck traffic

### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOW NEAR MARSH EDGE

Boat Launching, Loading, Docking Small punts can be put in from the levees. Boat launching facilities for larger boats can be  
and Services Available: found at Franks Tract and Discovery Bay.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging areas can possibly be located along the south levee of Bacon Island or near the junction with Middle River.

COMMUNICATIONS LIMITATIONS / PROBLEMS: X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

The map shows Bacon Island with a proposed rail road cut running vertically through its center. To the left of the island is the Old River, and to the right is the Middle River. Various locations are marked with symbols from the legend: Sorbent Booms (wavy lines) are placed along the riverbanks and around the island. Path of Oil (arrows) indicates the flow of oil from the rivers towards the island. Curtain Booms (dashed lines) are positioned to contain the oil. Skimmers (rectangles) are located near the river mouths. Shoreline Oil Recovery Areas (dashed outlines) are shown along the riverbanks. Anchors (dots) are marked at several points along the rail road cut. A legend in the top left corner defines these symbols and provides site information: Site Name: Rail Road Cut, Site Number: SF-918-A. A north arrow is also present in the legend.

### Potential Site Protection Strategy Legend

Rail Road Cut

**Site Number:** SF-918-1



Bacon Island

Dr. Samuel Beem

Middletown R

**STYLING**

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Woodward Island

San Francisco Bay & Delta  
9973-GRP9-27

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# Old River: Orwood Reach - Site Summary

2-920 -B

**County:** Contra Costa & San Joaquin County  
**USGS:** Woodward Island

**GRP:** 9      **Latitude** 37 56.0 N      **Longitude** 121 34.0 W  
**OSPR Map:** 171      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

The site is from Old River south from the Union Pacific Rail Bridge to the Woodward Canal. Although this site is ripped and levied, this reach contains fragile tule berm islands with emergent and riparian vegetation.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

"B" priority all year due to the few remaining small in-channel island present along this reach.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable)**

In-channel marsh islands are at risk year-round. Special Status Species of marsh plants on the islands are vulnerable to oil.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Heron and egrets inhabit this area.

River otters are found here.

The slough provides habitat for several species of fish including, winter-run chinook salmon (CE, FE) striped bass, delta smelt and largemouth bass.

Special Status Species found here include Mason's lilaeopsis and California Hibiscus. In addition, tules and willows are common.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
ELO	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
ELO	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

## 2-920 -B Old River: Orwood Reach - Site Strategy

County: Contra Costa & San Joaquin CHART 18661 Sacramento & San Joaquin River

Latitude Longitude  
37 56.0 N 121 34.0 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

The site is from Old River south from the Union Pacific Rail Bridge to the Woodward Canal.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

There are shallows and submerged hazards throughout the Delta.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats. These island shores are eroding and fragile.

### SITE STRATEGIES

#### Strategy 2-920.1

(USCG Strategic Objective: 5 ) Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### **Objective or Prevention Condition**

Protect in-channel marsh islands from oil either coming up river or down river.

#### **Technique Details**

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy deflection curtain boom (<=18") in a "V" shape at either end of the several in-channel islands. Boom legs should be 50 to 100 ft. each to deflect oil away from oil and into the current.

#### Strategy 2-920.2

(USCG Strategic Objective: 8 ) Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### **Objective or Prevention Condition**

Protect in-channel marsh islands from oil. Recover oil in channel north of Indian Slough.

#### **Technique Details**

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

a) Place 600 ft of deflection boom and skimmer in west channel adjacent to the largest island at the river bend north of Indian Slough.

b) Deploy 600 ft. of curtain boom (<=18") to deflect oil from across channel to the west shore.

### Table of Response Resources

strategy	hboom	swpbmxboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-920.1	500				1/0		0	3		5
2-920.2	1200		9-12 / 25lb Danforth		1/1		1	6-10		8

### LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

BY ROAD: take Hwy 4 east to Brentwood, turn left (east) on Chestnut Street, turn left on Byron Hwy, Turn right (east) on Orwood Road, proceed to river at Cruiser Haven Marina. Can also access through Discovery Bay off Hwy 4 south of Brentwood. BY BOAT: From Frank's Tract area proceed south down Old River to Railroad Cut; or from Discovery Bay follow Indian Slough to Old River and Orwood

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
2WD, LG TRUCK, HVY EQUIP, 4WD,

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions: No restrictions noted

Boat Launching, Loading, Docking Boat launching facilities are available at Discovery Bay and at a small marina located near the  
and Services Available: Railroad Bridge.

#### **FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

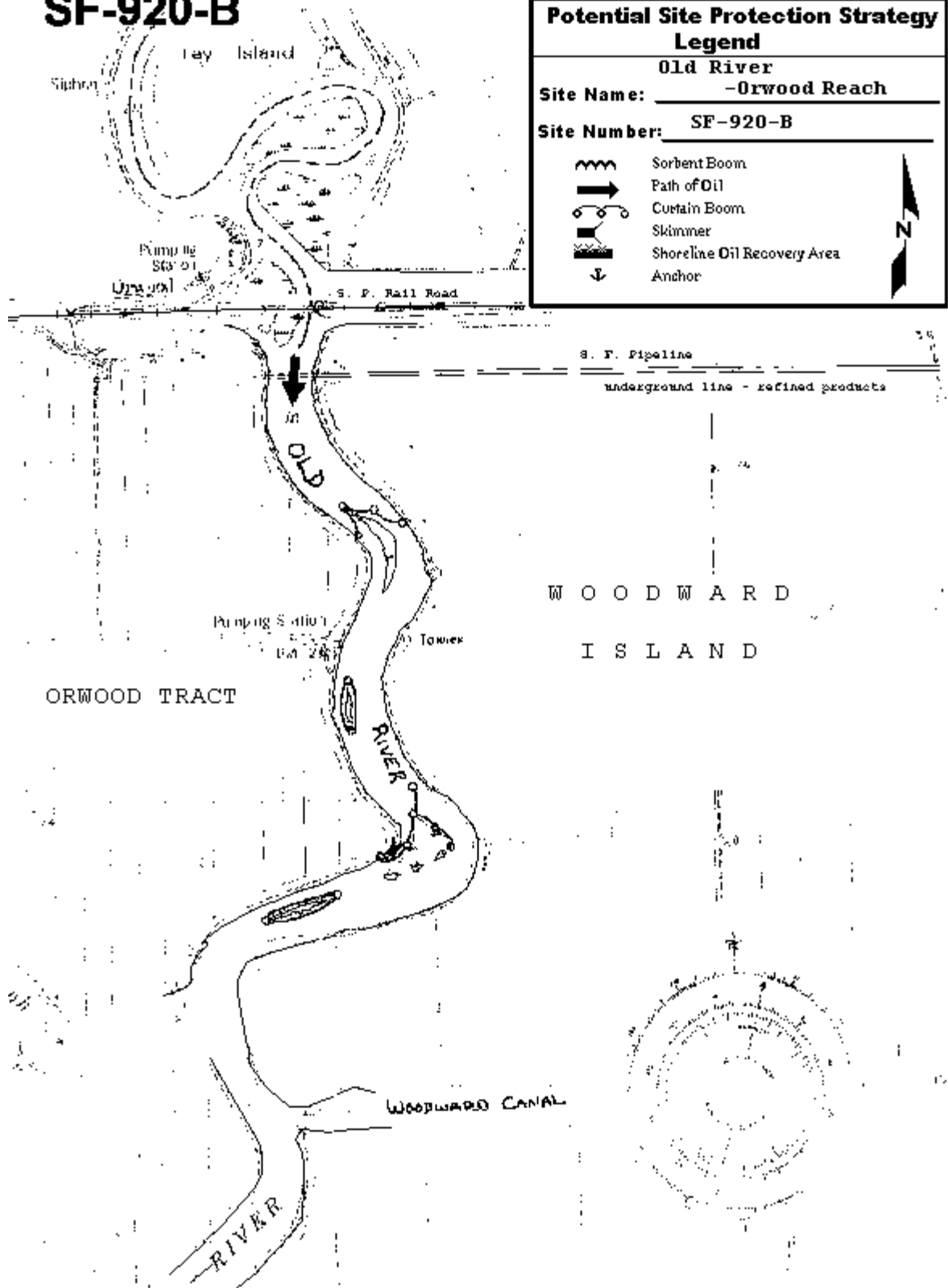
Levee roads on the Orwood Tract can be used as deployment sites.

#### **COMMUNICATIONS LIMITATIONS / PROBLEMS:**

X No Problems Radio Pager Cell phone

#### **ADDITIONAL COMMENTS**

# SF-920-B



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# Indian Slough - Site Summary

2-922 -A

**County:** Contra Costa  
**USGS:** Woodward Island

**GRP:** 9      **Latitude** 37 56.0 N      **Longitude** 121 34.0 W  
**OSPR Map:** 171      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site consists of Indian Slough from the confluence with Old River to Bixler Road, including Werner Dredger Cut to the Union Pacific Railroad. The site includes a few in-channel "islands" and areas of emergent marsh and riparian vegetation. Discovery Bay, a residential complex, is located near its terminus.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

"A" priority all year due to the in-channel islands and marsh habitat along the banks of Werner Dredger Cut.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

In-channel marsh islands and associated wildlife are at risk.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Songbirds, herons, and egrets are found in this area.  
River otter and muskrat inhabit the site.  
Tules are common.  
Willows are common.

### **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
ELO	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
L	Marina: Discovery Bay	Discovery Bay	(925) 634-5928	
ELO	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
L	Marina: Orwood Resort	Orwood Resort	(925) 634-2550	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
ELO	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

## 2-922 -A Indian Slough - Site Strategy

County: Contra Costa

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 56.0 N

Longitude  
121 34.0 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

This site consists of Indian Slough from the confluence with Old River to Bixler Road, including Werner Dredger Cut to the Union Pacific

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Riprap poses slip, trip and fall hazards. Vessels beware of submerged objects and shallows at margins.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported through this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

### SITE STRATEGIES

#### Strategy 2-922.1

(USCG Strategic Objective: 7 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

##### Objective or Prevention Condition

Protect slough from oil coming down Old River.

##### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Keep oil in Old River by deploying 300-500 ft. sections of curtain boom (18") from either the north or south point at the confluence, deflecting oil away from Indian Slough and back into the main current of Old River.

#### Strategy 2-922.2

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

##### Objective or Prevention Condition

Prevent oil from entering Island Slough from Old River. Recover oil near the confluence.

##### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy deflection curtain boom (18") in two locations:

(1) At the confluence with Old River deploy 300-500 ft. of curtain boom from the south point at the slough entrance extending into Old River. Form a J-hook against the levee to facilitate the placement of a skimmer operated by a vacuum truck from the levee. Deploy a second 300 ft. curtain boom from the day marker in mid-channel. Line levee with sorbent booms.

(2) At the second collection location, deploy 2 or 3 - 200 ft (<=18") curtain boom sections in the Old River at the bend immediately north of the confluence with Indian Slough. Form a J-hook and place the skimmer where the water eddies at the bend (near the large trees). Collect oil with the skimmer and vacuum truck from the levee.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-922.1	500			5 / 25lb Danforth		1 / 0	SSS		1			7
2-922.2	1000			8-10 / 25lb Danforth		1/1	SSS		1	6-8		

### LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Key access to the site is from Highway 4 east to Discovery Bay Blvd.. Turn right on Willow Lane Road, then right on Marina Road, and left on Channel Drive to launch ramp.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
2WD, LG TRUCK, HVY EQUIP, 4WD,

##### WATER LOGISTICS:

Access limitations: depth, obstructions: LOW CLEARANCE ON DREDGER CUT

Boat Launching, Loading, Docking Boat launching facilities are available at Discovery Bay and the Orwood Resort/Marina.  
and Services Available:

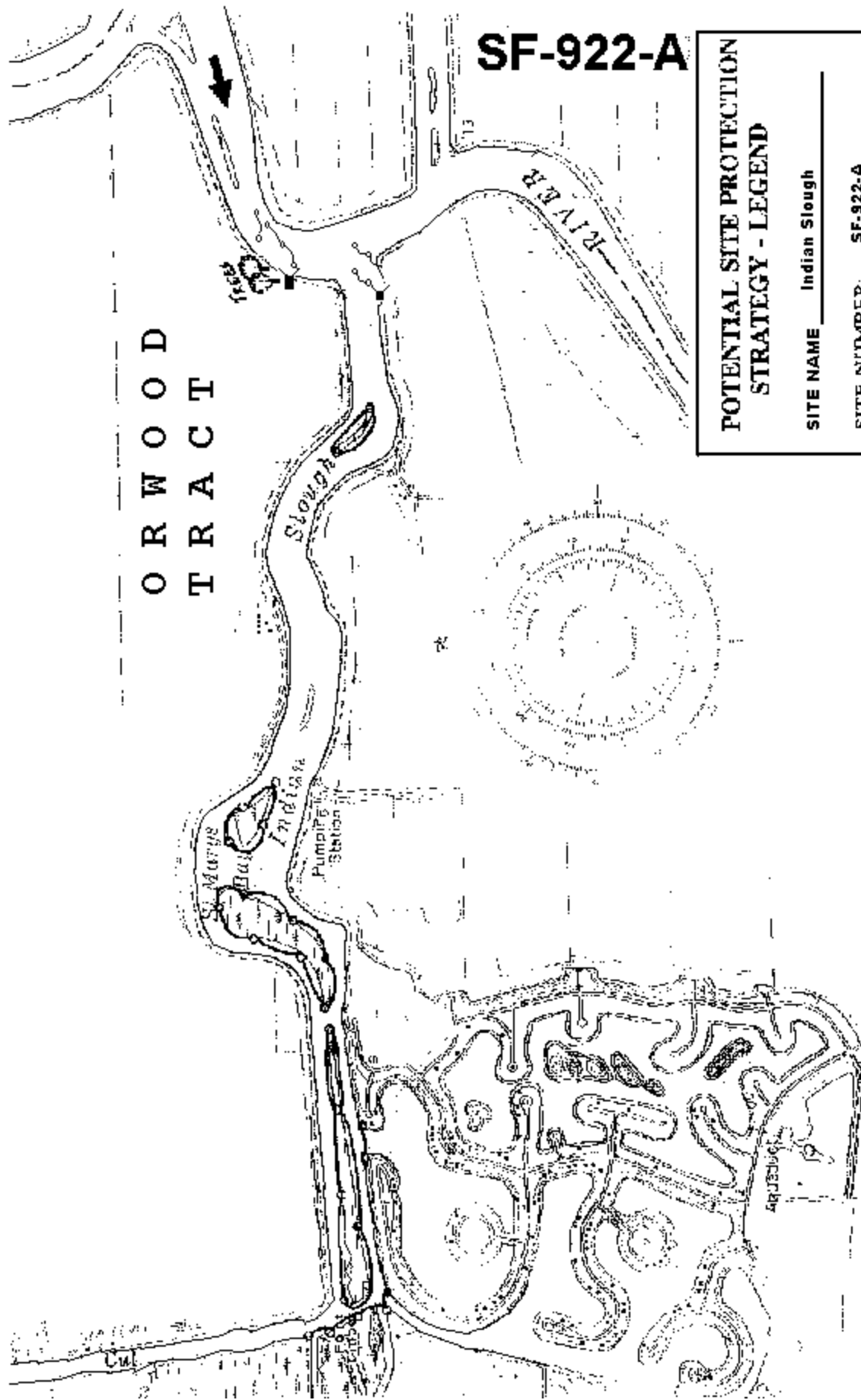
##### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Facilities and deployment sites can possibly be found/located along the levees of the Orwood Tract and Byron Tract or at the Discovery Bay launch ramp.

##### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

##### ADDITIONAL COMMENTS







**SF-922-A**

**POTENTIAL SITE PROTECTION  
STRATEGY - LEGEND**

**SITE NAME** Indian Slough

**SITE NUMBER** SF-922-A

-  Path of Oil
-  Curtain Boom
-  Skimmer
-  Shoreline Oil Recovery Area

**ORWOOD  
TRACT**

**BYRON  
TRACT**

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# Woodward Canal - Site Summary

2-924 -A

**County:** San Joaquin  
**USGS:** Woodward Island

**GRP:9**      **Latitude** 37 56 N      **Longitude** 121 31 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This canal runs between Old River and Middle River and is situated between Woodward and Victoria Islands. This canal is a man-made waterway consisting of two parallel channels with tule island berms in the middle of the canal. Levees are rip-rapped. However, occasional emergent and marsh vegetation are present along the margins. The south channel is also referred to as North Victoria Canal.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

Marshes are "A" sensitivity year round. Special Status Species occur here.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

In channel, marsh islands and various species of sensitive plants are at risk.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Heron, egrets, and possibly, clapper rails are found in this area.  
River otter, beaver, and muskrat, are possibly found here.  
Winter-run chinook salmon (an endangered species) are present almost all year either as migrating adults (winter) or outmigrating smolts (spring-summer).  
Special Status Species found here include Mason's lilaeopsis and California hibiscus. Tules and willows are also found at this site.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
ELO	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-924 -A Woodward Canal - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 56 N

Longitude  
121 31 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This canal runs between Old River and Middle River and is situated between Woodward and Victoria Islands.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Shallow water near the middle of the canal is potentially hazardous.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

## SITE STRATEGIES

### Strategy 2-924.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Exclude oil from entering the canal and impacting marsh islands.

### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Very little current flows into this canal. The main current flows past the canal down river. Position an exclusionary curtain boom (<=18") straight across the canal entrance at both ends (i.e., Old and Middle River) to prevent oil from entering the canal. Deploy 600 ft. at both ends, and anchor into the rip-rapped shore. (Total boom 1200 ft.)

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-924.1	1200			20 / 20lb Danforth		2 / 2				10		5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access is by boat from Highway 4 up Old or Middle Rivers approximately 3.5 miles to Woodward Canal. By road, take Hwy 4 east to Discovery Bay or to the levee roads on Victoria Island.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
Levee roads may be impassible when wet

### WATER LOGISTICS:

Access limitations: depth, obstructions: No limitations.

Boat Launching, Loading, Docking and Services Available: Boat launching facilities are available at Discovery Bay or Cruiser Haven Harbor at Old River near Railroad Cut.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Facilities and deployment sites can be found/located at Discovery Bay in the west or on the levees of Upper Jones Tract to the east.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

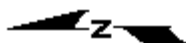
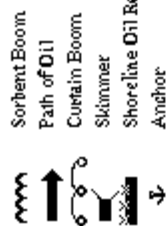
X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

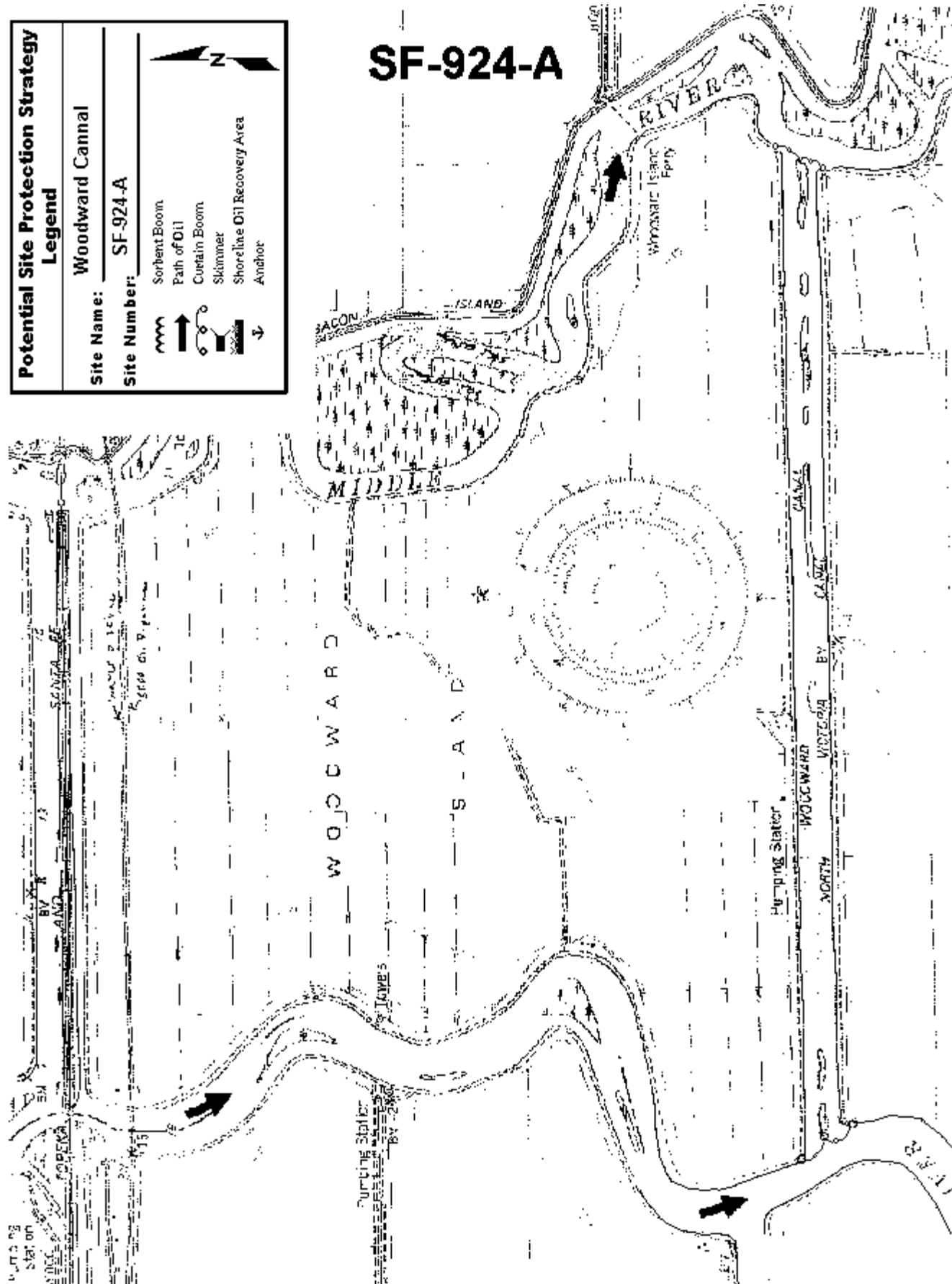
### Legend

**Site Name:**

Site Number: SF-924-A



**SF-924-A**



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# Old River: Coney Island Reach - Site Summary

2-925 -A

**County:** Contra Costa  
**USGS:** Clifton Court Forebay

**GRP:9**      **Latitude** 37 51 N      **Longitude** 121 33 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

Site includes Old River around Coney Island and West Canal. Rip-rap lined levees with many large tule berm island in Old River:  
islands include marsh, riparian and terrestrial habitats. West Canal is a straight channel of rip-rap with small patches of marsh.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

"A" sensitivity year round because of marshes present. Salmon present between Oct. 15 through May 31. Main water intakes to Clifton Court Forebay are from West Canal.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

Marsh, riparian and aquatic habitats are at risk year-around.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Waterfowl, egrets, herons, double- crested cormorants, and songbirds. This is a nesting and foraging area for Swanson's Hawk (CSC).

River otters, muskrats

Tule, willows, oaks, and coyote bush. Mason's Lilaeopsis (CR). California hibiscus

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Barbara Burns	Hotchkiss Reclamation District	(510) 684-3740	
ELO	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
ELO	Alex Hildebrand	South Delta Water Agency	(209) 823-4166	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-925 -A Old River: Coney Island Reach - Site Strategy

County: Contra Costa

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 51 N

Longitude  
121 33 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

Site includes Old River around Coney Island and West Canal.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

## SITE STRATEGIES

### Strategy 2-925.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil from moving into site; Deflect to shores for collection

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Depending on direction of on-coming oil; deploy booms across confluence(s) from Old River and West Canal and/or Victoria Canal to exclude oil. Deflect oil to skimmers operating from levees on surrounding islands.

### Strategy 2-925.2

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/08/1995 07/01/1996

#### Objective or Prevention Condition

Prevent oil from entering Clifton Court Forebay.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Exclude oil from water intake pumps at the south end of West Canal. Deploy 300 ft of 18" harbor boom straight across intake cove outside debris fence. Notify facility of oil spill and instruct to shut down pumps to minimize flow of water and oil through canal.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-925.2	300			2 / 25-40lb into levees		1 / 0				3		
2-925.1	1500			12-15 / 25 lb Danforth		2 / 1	SSS		1	9-12	continuous	5

## LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Hwy 4 east to town of Byron. Take Byron-Bethany Road south. Left on Herdlyn Rd along levee to West Canal.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
Levees may not be passable when wet.

#### WATER LOGISTICS:

Access limitations: depth, obstructions: None

Boat Launching, Loading, Docking Launching facilities for small boats at Dell's Boat Harbor.  
and Services Available:

#### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Stage from levees on surrounding islands. Dell's Boat Harbor.

#### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone







#### ADDITIONAL COMMENTS

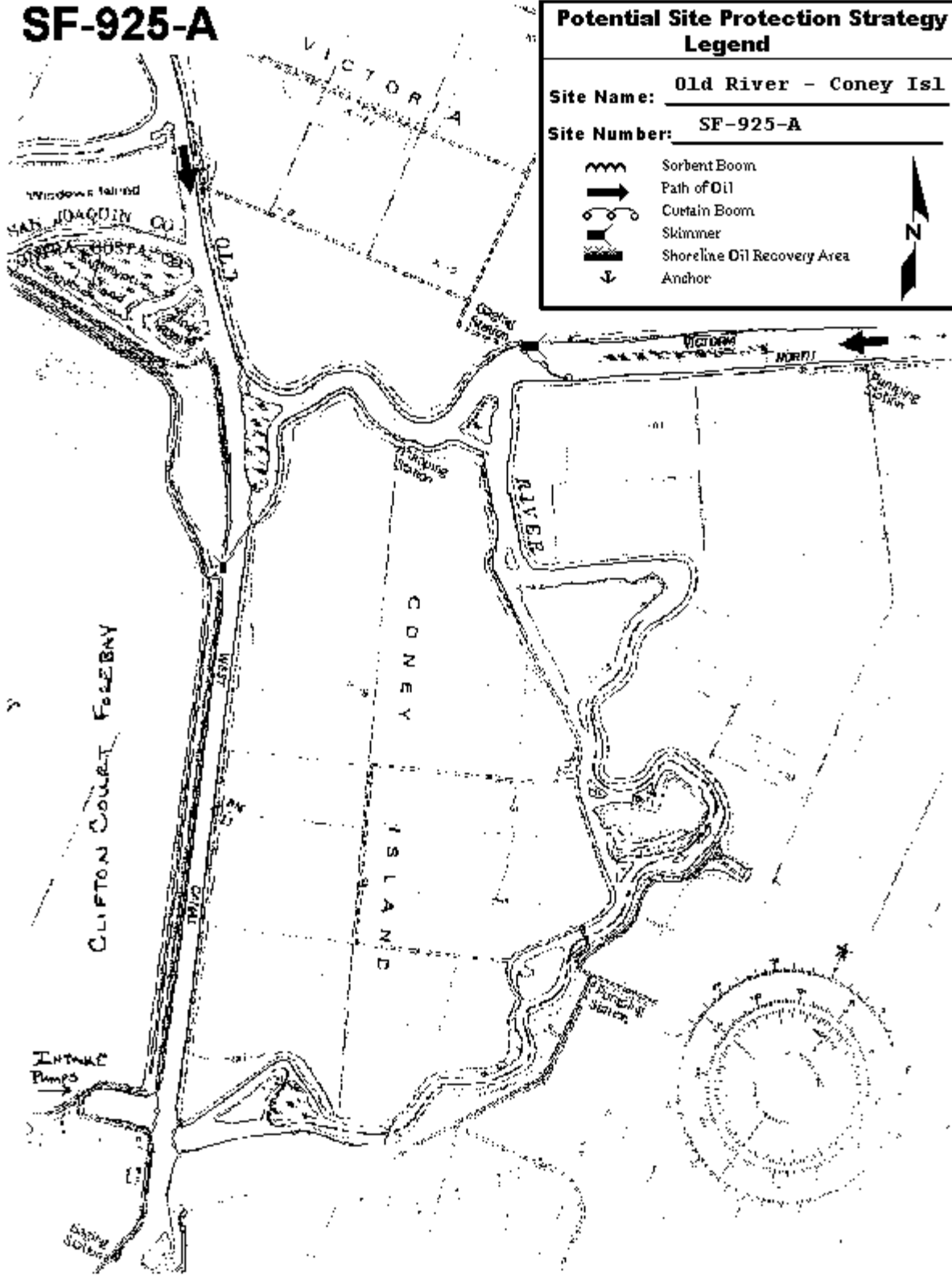
# SF-925-A

## Potential Site Protection Strategy Legend

Site Name: Old River - Coney Isl

Site Number: SF-925-A

-  Sorbent Boom
-  Path of Oil
-  Curtain Boom
-  Skimmer
-  Shoreline Oil Recovery Area
-  Anchor



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# Widdows and Eucalyptus Islands - Site Summary

2-927 -A

County: San Joaquin  
USGS: Clifton Court Forebay

GRP: 9 Latitude 37 52 N Longitude 121 34 W  
OSPR Map: Last ACP Update: 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

Site includes the two islands: the flooded interiors and surrounding levees of both Widdows and Eucalyptus Islands. Freshwater habitat is present on the inside and exterior side of the levees. Inside is shallow, lots of water hyacinth. Riparian forest habitat on upper levees. These islands have been designated as "Significant Natural Areas" by the Delta Levees Master Environmental Assessment. Channel between the two islands is impassable by boat.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

A year-round "A" priority for protection due to marsh and riparian habitats, the presence of special status species, and nesting birds.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

Freshwater marshes and riparian habitat inside and surrounding island.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Swainson's hawk (CSC), redshoulder redtail hawks, herons, egrets, waterfowl, kingfishers, songbirds.  
River otter  
Winter-run Chinook salmon(endangered) are present all year either as migrating adults (winter) or as out-migrating smolts (spring-summer), also large mouth bass, delta smelt (endangered).  
Rushes, water hyacinth  
California hibiscus and Mason's Lilaeopsis (CR). Cattails, willows and oaks.

### CULTURAL and ARCHEOLOGICAL SENSITIVITIES

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Barbara Burns	Hotchkiss Reclamation District	(510) 684-3740	
ELO	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
ELO	Alex Hildebrand	South Delta Water Agency	(209) 823-4166	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-927 -A Widdows and Eucalyptus Islands - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 52 N

Longitude  
121 34 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Site includes the two islands: the flooded interiors and surrounding levees of both Widdows and Eucalyptus Islands.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Vessels beware of shallow water and tree snags underwater.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and wildlife. Avoid trampling of marsh and forest habitats. Avoid disturbance to nesting hawks, egrets, and herons. Do not tie boom to trees on the levee.

## SITE STRATEGIES

### Strategy 2-927.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Prevent oil from entering Widdows Island.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

At Widdows Island there is a levee breach along Old River - deploy 4x4 curtain boom (800 ft) across breach and parallel with river current. Back boom with sorbent boom if necessary.

### Strategy 2-927.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Prevent oil from reaching both islands.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy 2 layers of deflection curtain boom (600 ft of 18" each) across Old River Channel up or down current from islands. Deflect at angle to Byron Tract or Victoria Island levees. Recover against levee with shoreside skimming system (SSS). Deploy deflection boom across confluence with Italian Slough (300 ft.)

### Strategy 2-927.3

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Prevent oil from entering Eucalyptus Island

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

At Eucalyptus Island, the levee breaches are primarily along the south and SE levees. Breaches are less than 50 ft wide. Block with 4x4 curtain boom as needed. Back boom with sorbent boom if necessary. Block entrance channels (4) around Eucalyptus and King Islands to Old River with exclusion boom (300 ft)

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-927.1		800		6 / 20lb or stakes	800	1/1				3-4	daily	5
2-927.2	1500			12 / 25 lb Danforth		2/0	SSS		1	8	with tidal change	5
2-927.3		550			250	1/1				3-4	daily	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access is from Highway 4 east to Byron. Take Byron Highway south, turn left (east) on Clifton Court Rd., follow to north side of

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
No restrictions to nearby levees

### WATER LOGISTICS:

Access limitations: depth, obstructions: Margin Shallows; Channel between islands impassable by boat.

Boat Launching, Loading, Docking Facilities for small boats only are available at Del's Boat harbor  
and Services Available:

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Stage from levees around Clifton Court Forebay.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS







# SF-927-A

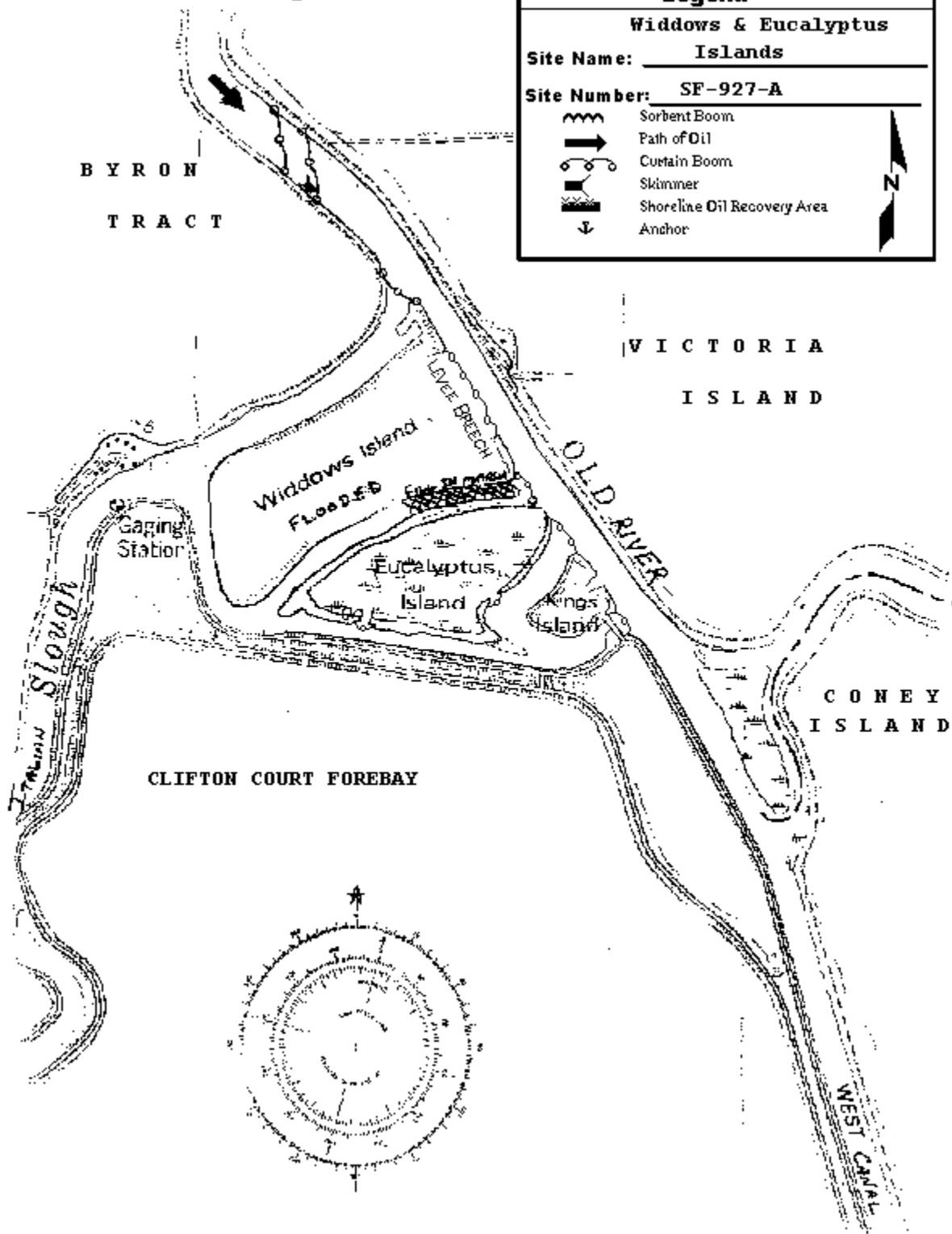
## Potential Site Protection Strategy Legend

Widdows & Eucalyptus

Site Name: Islands

Site Number: SF-927-A

-  Sorbent Boom
-  Path of Oil
-  Curtain Boom
-  Skimmer
-  Shoreline Oil Recovery Area
-  Anchor



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# Victoria Canal - Site Summary

2-929 -A

**County:** San Joaquin  
**USGS:** Clifton Court Forebay & Holt

**GRP:** 9      **Latitude** 37 52 N      **Longitude** 121 32 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

A straight canal located between Victoria and Union Islands, this connects Old River on the west to Middle River on the east.  
Sensitive resources in the site include tule marshes and berm island down the middle. Bounded on both sides by rip-rap lined levees.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

"A" priority for protection all year for the freshwater marsh and associated special status species.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

Tule marsh and berm islands along center of canal. A small riparian forest exists on a mid-channel island at the east end of the canal.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Swainson's hawk (CSC), waterfowl, egrets, herons,  
River otters and beaver.  
Winter-run Chinook salmon (CE,FE) are present all year as adults (winter) and smolts (spring and summer).  
Delta tule pea, delta button celery, tules and phragmites  
Mason's Lilaeopsis (CR), California hibiscus,

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## **KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
ELO	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
ELO	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
ELO	Alex Hildebrand	South Delta Water Agency	(209) 823-4166	
L	Marina Union Point Resort	Union Point Resort	(209) 948-4294	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-929 -A Victoria Canal - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 52 N

Longitude  
121 32 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

A straight canal located between Victoria and Union Islands, this connects Old River on the west to Middle River on the east.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Vessels be aware of shallow water near middle of canal. Aircraft beware of powerlines at west end.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and wildlife. Do not tie boom to trees on the levee.

## SITE STRATEGIES

### Strategy 2-929.1

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

West end of canal: Keep oil out of marsh areas located in middle of canal.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil coming from northern reaches of Old River, deploy strategy as described for Widdows and Eucalyptus Islands (SF-927-A) and Old River: Coney Island (SF-925-A). Oil may be deflected to levees of Victoria Canal. For resources necessary see the above mentioned strategy.

### Strategy 2-929.2

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude oil and stop spread when oil threatens from east end of canal.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil coming from Highway 4 or Middle River, deploy 18" curtain boom to deflect oil to either levee in J-hook configuration. Angle boom to fit the best current and wind conditions and shoreside recovery needs. Recover oil with skimmers from levees of Union

### Strategy 2-929.3

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/08/1995 07/01/1996

#### Objective or Prevention Condition

Prevent oil from entering Clifton Court Forebay.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Notify facility of oil spill and instruct to shut down pumps to stop or decrease the flow of water and oil through the canal.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-929.1	0	0	0	0	0	0	0	0 See SF-925-A and SF-927-A			
2-929.2	800					1 / 0	SSS	1	4-6	continuous	5,6
2-929.3	0	0	0	0	0	0	0	0 See SF-925.03-A			

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Access is from Highway 4 east to Union Point at confluence with Middle River and Victoria Canal.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
2WD, LG TRUCK, HVY EQ, 4WD, ATV, FOOT

### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOW WATER, POWERLINES

Boat Launching, Loading, Docking Larger boats launch from Discovery Bay. Skiffs from levees.  
and Services Available:

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging and boat mooring at Union Point.

COMMUNICATIONS LIMITATIONS / PROBLEMS: X No Problems Radio Pager Cell phone

ADDITIONAL COMMENTS

[illegible]

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# Old River: Fabian Tract Reach - Site Summary

2-930 -A

**County:** San Joaquin  
**USGS:** Clifton Court Forebay

**GRP:9**      **Latitude** 37 49 N      **Longitude** 121 33 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This reach extends from Old River and side channels along the southern margin of Pescadero Island to Salmon Slough. This reach contains tule berm islands and marshy/riparian margins with some upland habitat. Water depths range approximately two to three meters in depth. It has been designated as a natural area by Delta Master Recreational Plan.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

This site has "A" level sensitivity all year because of marshes and sensitive species. Also, the entrance to the Delta Mendota Canal is at the confluence with Old River.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

There are marshy islands and margins.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

The area is of major importance to migratory waterfowl. A variety of raptors including Swainsons Hawk, , waterfowl, herons, and egrets nest, roost and forage at this site.

River otter, beaver, muskrat, and western pond turtle (CSC) are found here.

Bass are common.

Special Status Species found here include Mason's lilaeopsis and California hibiscus. In addition, tules are common at the site.

Willows and oaks are common.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## **KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B/T	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
L/O	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
EL/O	Barbara Burns	Hotchkiss Reclamation District	(510) 684-3740	
EL/O	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
EL/O	Alex Hildebrand	South Delta Water Agency	(209) 823-4166	
L/O	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-930 -A Old River: Fabian Tract Reach - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 49 N

Longitude  
121 33 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This reach extends from Old River and side channels along the southern margin of Pescadero Island to Salmon Slough.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Beware of shallow sloughs and submerged objects, water hyacinth choked water ways.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

## SITE STRATEGIES

### Strategy 2-930.1

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Divert and collect oil at the river confluence at Hammer Island.

### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Deploy curtain boom (<=18") and skimmers across channels to exclude oil from down river areas and to facilitate collection. Boom off/exclude oil from the two small channels west of Hammer Island. Set deflection boom in Old River channel at Hammer Island.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-930.1	500					1/1	SSS		1-2	8-10		5,6

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is from highway 4 east to the town of Byron. Take Byron Bethany Road south, and turn left on Lindeman Road to the boat ramp at the river confluence with the Delta Mendota Canal.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
2WD, LG TRUCK, HVY EQ, 4WD, AT

### WATER LOGISTICS:

Access limitations: depth, obstructions: SMALL BOATS RECOMMENDED

Boat Launching, Loading, Docking and Services Available: Boat launching facilities for small boats (<20 ft.) are available at Del's Boat Harbor.

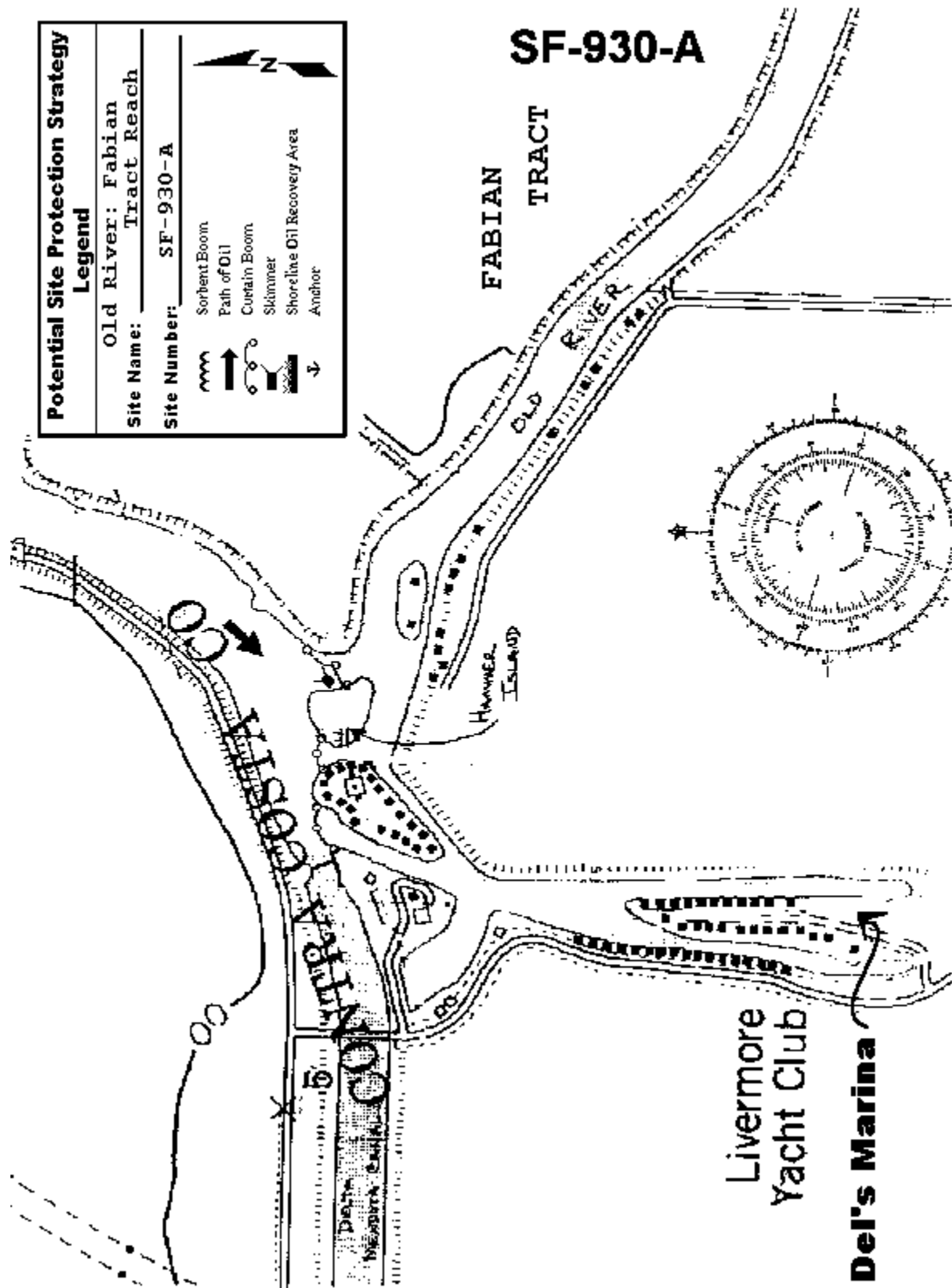
### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Facilities and deployment sites can be found/located at Del's Boat Harbor.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS



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# Grant Line Canal (West) - Site Summary

2-932 -A

**County:** San Joaquin  
**USGS:** Clifton Court Forebay

**GRP:** 9      **Latitude** 37 51 N      **Longitude** 121 33 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

Located at the south side of Union Island, this site includes "Grant Line" and Fabian and Bell" Canals. They run parallel from confluence with Old River on the west end to Salmon Slough on the east end. Tule berm islands and marshy/riparian areas in and along levees bordering Grant Line Canal, Fabian and Bell Canal and Salmon Slough.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

"A" priority for protection all year due to the marsh habitat and presence of special status species of plants and wildlife.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

Freshwater marsh and riparian habitats and associated wildlife year-round.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Swainson's hawk (CT)  
River otters, beaver and muskrat.  
Delta tule pea, tule, cattails, and water hyacinth  
Mason's Lilaepsis (CR)

### **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
L	Del's Boat Harbor	Del's Boat Harbor	(209) 835-8365	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
LO	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
ELO	Barbara Burns	Hotchkiss Reclamation District	(510) 684-3740	
ELO	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
ELO	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
ELO	Alex Hildebrand	South Delta Water Agency	(209) 823-4166	
L	Oasis Marina	Tracy Oasis Marina	(209) 835-3182	
LO	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-932 -A Grant Line Canal (West) - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 51 N

Longitude  
121 33 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Located at the south side of Union Island, this site includes "Grant Line" and Fabian and Bell" Canals. They run parallel from confluence with Old River on the west end to Salmon Slough on the east end.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booms. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and wildlife. Do not tie boom to trees on the levee.

## SITE STRATEGIES

### Strategy 2-932.1

(USCG Strategic Objective: 5.6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Prevent oil moving up Old River from entering Grant Line Canal.

### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

1) Deploy 500 ft curtain boom (18") in J-hook across Old River above confluence with Grant Line Canal. Begin at gauging station on west shore, deflecting to the east shore at Union Island. Collect oil off of Union Island levee in slow water on east side of channel.

2) If necessary, deploy similar boom configuration at mouth of Grant Line and Fabian and Bell Canals. Set collection J-hook in slow water on south side of channel.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-932.1	1000					2/1	SSS		1	6	with tidal change	5.6

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Access is from Highway 4 east to the town of Byron. Take Bryon Highway south. Turn left on Herdlyn Road. Proceed to confluence of Old River and grant Line Canal. Or: left on Lindeman Road to Del's Boat Harbor.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
2WD, LG TRUCK, HVY EQUIP, 4WD, ATV

### WATER LOGISTICS:

Access limitations: depth, obstructions: Shoals and snags possible.

Boat Launching, Loading, Docking Launching facilities for small boats are available at Del's Harbor. Additional facilities are  
and Services Available: available at Tracy Oasis Marina

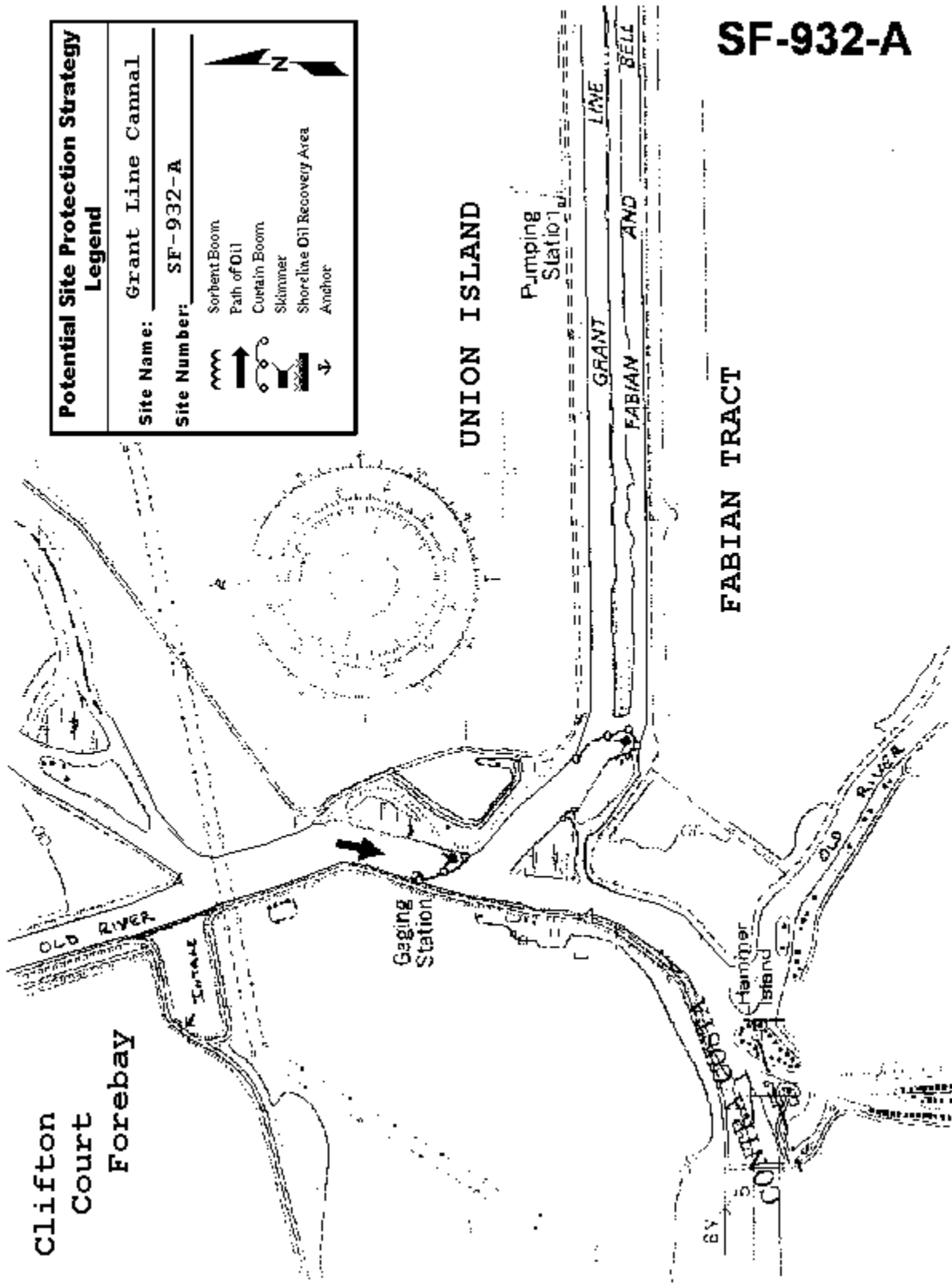
### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Stage at Del's Boat Harbor and levees, or at Tracy Oasis Marina.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS



**SF-932-A**

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# Tom Paine Slough - Site Summary

2-934 -B

County: San Joaquin  
USGS: Union Island

GRP: 9      Latitude 38 02 N      Longitude 121 49 W  
OSPR Map:      Last ACP Update: 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

Upper Tom Paine Slough, well-developed oak riparian along steep, nonrip-rapped banks; oak Savannah remnants in places.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

### **RESOURCES AT RISK**

#### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

This extensive freshwater marsh system is good habitat for marsh birds and mammals of all kinds. This is nesting and foraging habitat

for all manner of waterfowl and marsh birds. The marsh also supports a wide diversity of marsh mammals and other vertebrates.

The area is important to migratory waterfowl. Designated natural area by Delta Levees Master Environmental Assessment (DLMEA).

Archaeological site.

#### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

### **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

There is an archeological site here. For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

### **KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B/T	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
B/T	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-934 -B Tom Paine Slough - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
38 02 N

Longitude  
121 49 W

**SITE LOCATION:** boundaries, landmarks, area to locate and delimit the site

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Penetration into marshy areas, woody cover, riprap, and animal and invertebrate burrows in levees, islands and uplands. There are many important Ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and thought this site by exclusion and collection booming. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and creatures. Do not tie boom to trees on the levee.

### SITE STRATEGIES

#### Strategy 2-934.1

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/08/1995

#### **Objective or Prevention Condition**

NO STRATEGY HAS BEEN DEVELOPED.

#### **Technique Details**

Check here means " No strategy diagram": ( x ) Check here means "Contact CCC": ( )

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-934.1	0	0	0	0	0	0	0	0	0			

### LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Highway 205 to Tracy Blvd/Central Tracy. Go north on Tracy Blvd. For approximately 5 miles to Grimes Rd. Go left on grimes Rd. for 1/2 mile to Tracy Oasis Marina. Main boundary road in J4 (Byron Highway) which can be reached also from Highway 4.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions:  
Boat Launching, Loading, Docking  
and Services Available:

**FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** X No Problems Radio Pager Cell phone

**ADDITIONAL COMMENTS**

## No Strategy Diagram or Map

# Paradise Cut - Site Summary

2-935 -A

County: San Joaquin  
USGS: Lathrop, Union Island

GRP: Latitude 37 48 N Longitude 121 22 W  
OSPR Map: Last ACP Update: 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This marshy-woody site includes all of Paradise Cut. There is a marshy area northwest of Paradise Dame. The western end has mature oak riparian woodland. Cottonwood riparian is the habitat on the middle portion of the reach. To the east, the levees are lined with riparian shrub-brush and flanked with walnut orchards.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

This site has "A " sensitivity year-round. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )

The extensive freshwater marsh and riparian woodland system is good habitat for marsh birds and mammals of all kinds.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

This is nesting and foraging habitat for all manner of waterfowl and marsh birds.  
The marsh also supports a wide diversity of marsh mammals and other vertebrates.

### CULTURAL and ARCHEOLOGICAL SENSITIVITIES

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B/T	Laurie Briden	Ca Dept Fish and Game Bay/Delta Studies	(209) 944-7800	
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B/T	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-935 -A Paradise Cut - Site Strategy

County: San Joaquin

CHART Sacramento-San Joaquin

Latitude  
37 48 N

Longitude  
121 22 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

This marshy-wooded site includes all of Paradise Cut.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Hazards have yet to be identified.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Minimize oil spread into, out of, and within this site. This habitat is premium and difficult to clean up. Minimize disturbance of wildlife and vegetation so far as possible.

### SITE STRATEGIES

#### Strategy 2-935.1

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/07/1995 07/01/1996

#### **Objective or Prevention Condition**

No strategy or response information has been developed.

#### **Technique Details**

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

No strategy or response information has been developed.

There is no strategy diagram

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-935.1												

### LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

By vehicle, you may reach this site from Tracy by traveling east on Grantline Rd to Paradise Rd to the levee of Paradise Cut.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal..locked gates)  
no info available

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions: no info available

Boat Launching, Loading, Docking

and Services Available: no info available

#### **FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

No info available

#### **COMMUNICATIONS LIMITATIONS / PROBLEMS:**

X No Problems Radio Pager Cell phone

#### **ADDITIONAL COMMENTS**



# Old River: Stewart Tract Reach - Site Summary

2-940 -A

County: San Joaquin  
USGS: Union Island, Lathrop

GRP: 9      Latitude 38 N      Longitude 121 W  
OSPR Map:      Last ACP Update: 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

Lowest extreme of Old River from Salmon Slough to the San Joaquin River. Riparian growth and emergent vegetation in marshy margins.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

The site is an "A" priority all year. Several Special Status Species occur here.

## **RESOURCES AT RISK**

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

This extensive freshwater marsh system is good habitat for marsh birds and mammals of all kinds. This is nesting and foraging habitat for all manner of waterfowl and marsh birds. The marsh also supports a wide diversity of marsh mammals and other vertebrates.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B/T	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
B/T	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-940 -A Old River: Stewart Tract Reach - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
38 N

Longitude  
121 W

**SITE LOCATION:** boundaries, landmarks, area to locate and delimit the site

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and thought this site by exclusion and collection booming. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and creatures. Do not tie boom to trees on the levee.

### SITE STRATEGIES

#### Strategy 2-940.1

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/08/1995

#### **Objective or Prevention Condition**

NO STRATEGY HAS BEEN DEVELOPED.

#### **Technique Details**

Check here means " No strategy diagram": ( X ) Check here means "Contact CCC": ( )

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-940.1	0	0	0	0	0	0	0	0	0			

### LOGISTICS

**DIRECTIONS:** to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Not Available

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions:  
Boat Launching, Loading, Docking  
and Services Available:

**FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

**COMMUNICATIONS LIMITATIONS / PROBLEMS:** X No Problems Radio Pager Cell phone

**ADDITIONAL COMMENTS**

## No Strategy Diagram or Map

# Middle River, Mandeville Reach - Site Summary

2-950 -A

County: San Joaquin  
USGS: Woodward Island

GRP: 9 Latitude 38 02.5 N Longitude 121 31.7 W  
OSPR Map: 169 Last ACP Update: 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

Site extends 4 miles from Venice tip south to Mildred Island and includes Columbia Cut. Its westerly margin is Mandeville Island. The east side is Medford and McDonald Islands. Middle River is a Delta Master Recreational Plan designated Natural Resource Area with Significant Habitat Values. This river reach is wide and deep with many sizable channel and berm islands and ripped levees. The berm and channel islands are vegetated with emergent marsh and scrub shrub. This is an important delta circulation and cross flow channel. Waves and currents can be strong here.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

All marsh areas are of "A" priority at all times. Special Status Species occur here: From September to December there are modest numbers of Delta smelt (F/CT) in this area; several rare plants.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

This Delta Master Recreational Plan designation emphasizes the ecological value of the islands in this site. This aquatic environment supports diverse freshwater community. Also this is an important transport channel to/from Mildred Island and the south delta.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Bird species which occur here are typical Delta waterbirds and marsh birds.  
Other vertebrates are typical aquatic and semi-aquatic mammals, reptiles and amphibians of the Delta.  
Western pond turtle (CSC) may occur here.  
This area has modest occurrence of Delta smelt (FT, CT) during fall/winter. Juvenile and adult striped bass are typical as are warm water species.  
Plants here include several Special Status Species including: Mason's lilaeopsis (CR), California hibiscus and Suisun marsh aster.

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

# 2-950 -A Middle River, Mandeville Reach - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
38 02.5 N

Longitude  
121 31.7 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Site extends 4 miles from Venice tip south to Mildred Island and includes Columbia Cut. Its westerly margin is Mandeville Island. The east side is Medford and McDonald Islands.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Aerial traffic beware of power wires. Slips, trips and falls are a hazard of riprap.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

There are many important ecological resources and rare species in this reach of river, and this is also a significant route for spill spread. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and creatures. Do not tie boom to trees on the levee. Oil issues here are oiling of marshy vegetation and penetration into riprap.

## SITE STRATEGIES

### Strategy 2-950.1

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Stop oil from entering or leaving Middle River at the mouth. Wind wash and strong currents can be a problem.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set an exclusion-diversion boom across the mouth at a diagonal to land oil on the Medford Isl levee. Anchor one end near the Mandeville levee just north of the first berm island and set boom diagonally from levee to berm island to berm island to Medford levee.

Leave a trailing boom length to maintain seal during tidal vacillations. Back with sorbent boom as necessary and set up collection at

### Strategy 2-950.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Keep oil from entering or leaving Middle River via Latham Slough / Mildred Island open water.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set 1500' of 4X4+ diversion-exclusion boom diagonally across slough just north of Mildred Island/Latham Slough. Anchor one end at the cable ferry landing on McDonald Isl and the other near the Mandeville levee. Back with sorbent. Collect oil at shore.

### Strategy 2-950.3

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Exclude at south end, if oil is coming from the Mildred Island area.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

reverse the above arrangements and shield islands. Also Do 2-995

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-950.1	1700			6/25/DANFORTH	2000		SSS	3	4 PERSON/2	frequent inspection	5,6
2-950.2	1500			5/25/danforths	1500	2/1			USE ABOVE	as above	5
2-950.3											5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is by boat, from Stockton Deep Water Channel at R4 and R6. Vehicle access is very restricted: private levee roads via convoluted routes: Hwy 4 to Inland Dr to McDonald Rd to private bridge or ferry McDonald Island or Hwy 4 to Bacon Island Rd to Bacon Isl. to private bridge to Mandeville Island.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
LEVEE ROADS ARE GOOD WHEN DRY

### WATER LOGISTICS:

Access limitations: depth, obstructions: deep draft, except near shore

Boat Launching, Loading, Docking Nearest boat launch and marine service is 8-mile road. Additional marine facilities are at Bethel and Services Available: Island or at the mouth of the Mokelumne.

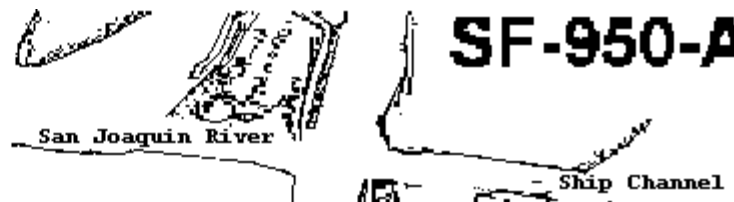
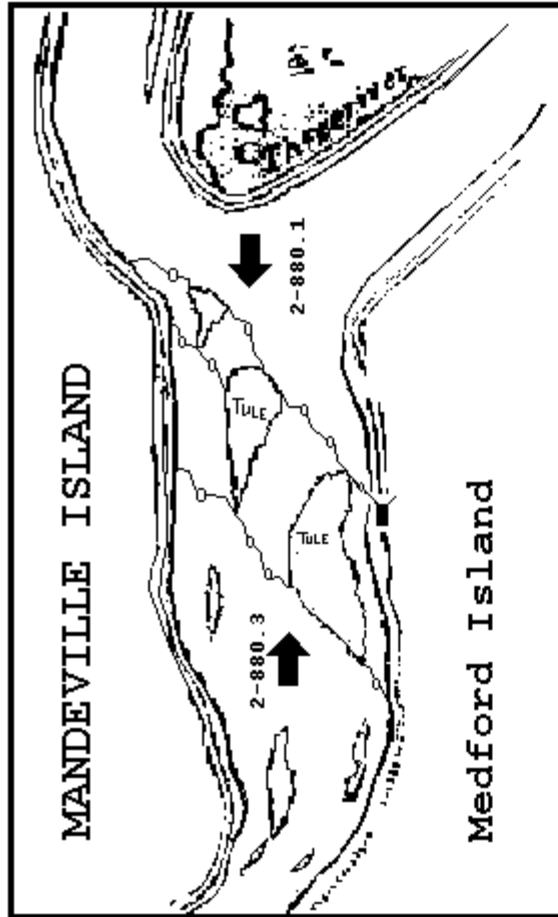
### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good deployment sites and facilities are at marinas above: rental boats, fuel, restaurants, water, and some camping and lodging. Consider the 8-mile road area as an area deployment site. Lower Jones Tract levees are another deployment area.

COMMUNICATIONS LIMITATIONS / PROBLEMS: X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

**SF-950-A**

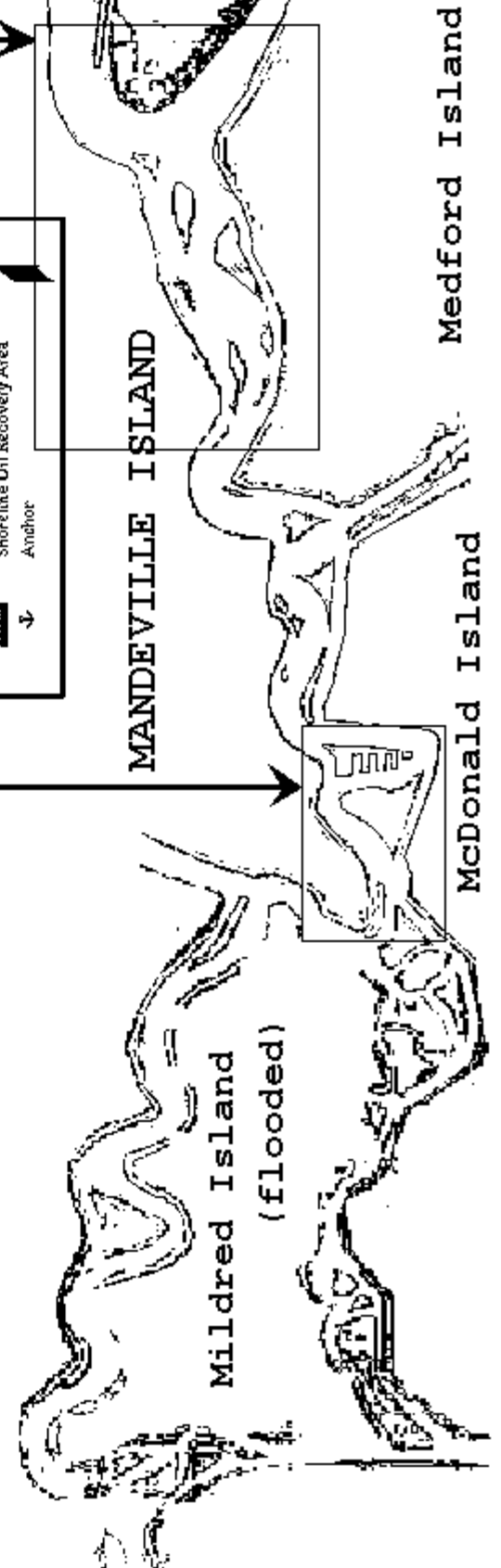
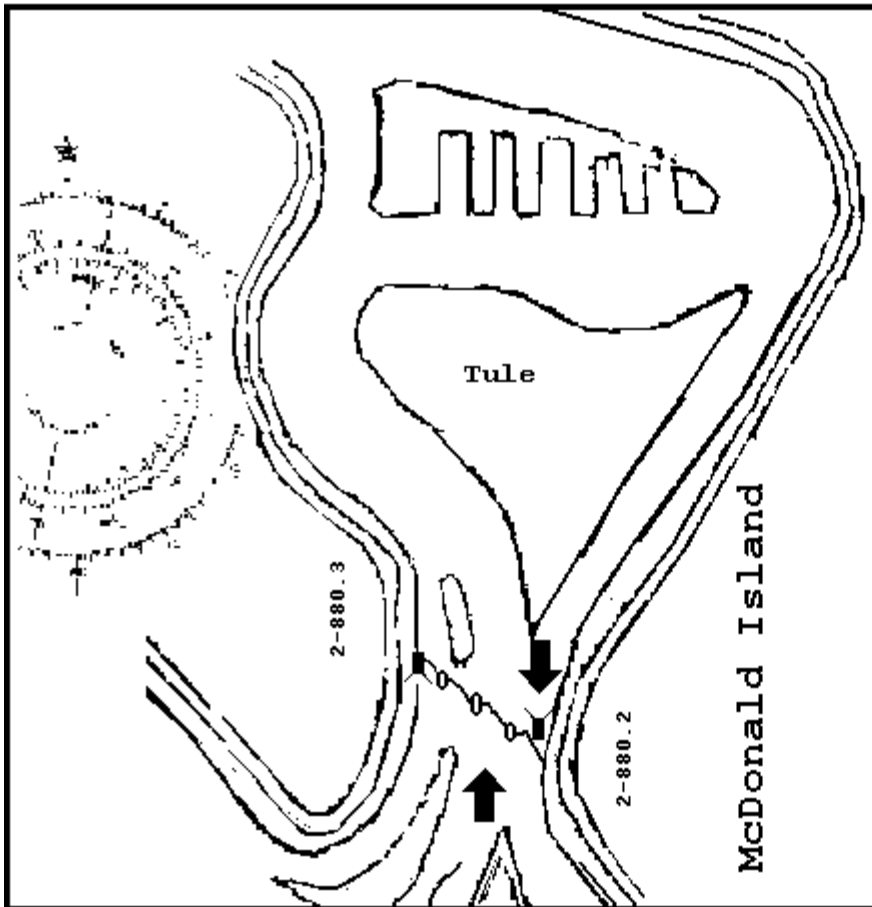


**Potential Site Protection Strategy**

**Legend**

Middle River  
Site Name: Mandeville Reach  
Site Number: SF-880-A

Sorbent Boom  
 Path of Oil  
 Curtain Boom  
 Skimmer  
 Shoreline Oil Recovery Area  
 Anchor



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# Columbia Cut - Site Summary

2-952 -A

County: San Joaquin  
USGS: Woodward Island

GRP: Latitude 38 01.8 N Longitude 121 29.7 W  
OSPR Map: 169 Last ACP Update: 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

Columbia Cut extends 1.5 miles connecting the San Joaquin Channel (Head Reach) with Middle River. It is bordered by Medford Island to the north and McDonald Island to the south. Columbia Cut has a Berm Island dividing most of its length to the Middle River confluence and a large channel island at its confluence with the San Joaquin. These islands have high ecological value as freshwater marsh and riparian shrub scrub. Levees are ripped with emergent vegetation pockets. Currents can be strong here. Draft is good throughout length.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

All marsh areas are of "A" priority at all times. Special Status Species are present: from September to December there are modest numbers of Delta smelt (F/CT) in this area; birds: black rail; rare plants occur in this site.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

The primary issue at this site is the high ecological value of marsh islands, particularly the island at the north end which supports black rails. The aquatic environment supports diverse freshwater community. Also this is an important oil dispersion/transport channel to/from Mildred Island and the south delta.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Black rail (FSC/CT) occurs here. Other bird species which occur here are typical Delta waterbirds and marsh birds. Other vertebrates are typical aquatic and semi-aquatic mammals, reptiles and amphibians of the Delta. Western pond turtle may occur here. This area has modest occurrence of Delta smelt during fall/winter. Juvenile and adult striped bass are typical as are warm water species. Only one Special Status plant Species has been recorded here: Mason's lilaeopsis. Others, California hibiscus and Suisun marsh aster, may also occur on larger channel island here.

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
OEL	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
TB	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
E	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-952 -A Columbia Cut - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
38 01.8 N

Longitude  
121 29.7 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Columbia Cut extends 1.5 miles connecting the San Joaquin Channel (Head Reach) with Middle River. It is bordered by Medford Island to the north and McDonald Island to the south.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

Oil issues here are oiling of marshy vegetation and penetration into riprap. This is also a significant route for spill spread. There are many important ecological resources in this reach of river and upstream sites where oil may be carried on tides and currents. The intent is to limit the free movement of oil into and through this site by exclusion and collection booming. Oil issues within the site are oiling of marshy vegetation and penetration into riprap. Minimize disturbance of vegetation and creatures. Do not tie boom to trees on the levee.

### SITE STRATEGIES

#### Strategy 2-952.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Stop oil from entering or leaving Columbia Cut at the mouth (at San Joaquin R).

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set exclusion-diversion booms across each mouth at Head Reach. Anchor one end near the Meford levee and anchor other end along Head Reach shore of unnamed tule island. Do the same at the other end to close channel on McDonald side mouth. Leave a trailing boom length to maintain seal during tidal vacillations. Back with sorbent boom as necessary. Set protective sorbents between hard boom if oil threatens from Head Reach. Wind wash and strong currents can be a problem, requiring back-up strategy (see .3).

#### Strategy 2-952.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Keep oil from entering or leaving Middle River via Columbia Cut.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set 900' of 8X8+ diversion-exclusion boom across mouth of Columbia Cut. Anchor one end near McDonald levee and the other near the Medford levee. Back with sorbent.

#### Strategy 2-952.3

(USCG Strategic Objective: 5,6 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

Backup strategy for Head Reach end: exclude and divert for collection, under prevailing wind and current pattern.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set 1500' 8X8+ diversion/exclusion boom at a diagonal across Columbia Cut just south of unnamed tule island. Angle to promote collection at appropriate shore under prevailing wind conditions.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-952.1		1000		4/25/DANFORTH	2000	0/2				4	frequent inspection	5
2-952.2	900			3/15/danforths	900	1/1				5		5
2-952.3	1500			4/25lbs/danforths			portable & VT	1		USE ABOVE	close watch	5,6

### LOGISTICS

#### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is by boat, from Stockton Deep Water Channel at R12 or R16 though Head Reach. Vehicle access is very restricted: private levee roads via convoluted routes: Hwy 4 to Inland Dr to McDonald Rd to private bridge or ferry to McDonald Island or I-5 to 8-mile road to private ferry to Medford Island.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
LEVEE ROADS ARE GOOD WHEN DRY

#### WATER LOGISTICS:

Access limitations: depth, obstructions: deep draft, except near shore

Boat Launching, Loading, Docking and Services Available: Nearest boat launch and marine service is 8-mile road. Additional marine facilities are at Bethel Island or at the mouth of the Mokelumne.

#### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Good deployment sites and facilities are at marinas above: rental boats, fuel, restaurants, water, and some camping and lodging. Consider the 8-mile road area as an area deployment site. Lower Jones Tract levees are another deployment area.

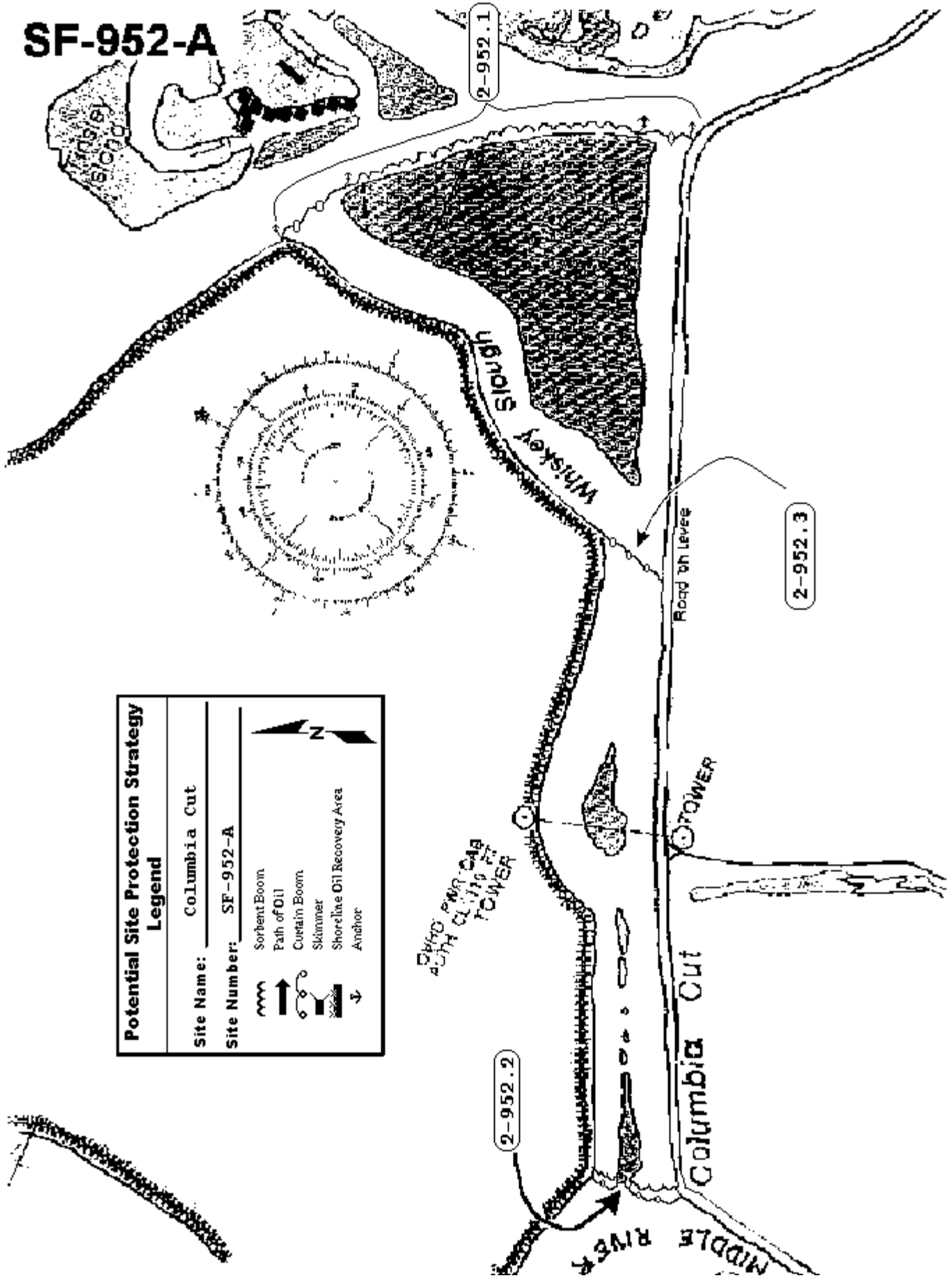
#### COMMUNICATIONS LIMITATIONS / PROBLEMS:







X No Problems Radio Pager Cell phone

#### ADDITIONAL COMMENTS



SF-952-A



Potential Site Protection Strategy Legend	
Site Name:	Columbia Cut
Site Number:	SF-952-A
	Sorbent Boom
	Path of Oil
	Curtain Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor

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# Mildred Island/Latham Slough - Site Summary

2-960 -A

**County:** San Joaquin  
**USGS:** Woodward Island

**GRP:9**      **Latitude** 37 59 N      **Longitude** 121 32 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site includes the flooded Mildred Island and adjacent Latham Slough from Empire Cut to Connection Slough. This site is a flooded island and adjacent slough. The flooded Mildred Island is surrounded by severely deteriorating levees which are covered with shrub and marsh vegetation. Latham Slough has several in-channel marsh islands and berms. This area has been designated as a "Significant Natural Area" by the Delta Levees Master Environmental Assessment.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

A year-round "A" priority for protection due to the extremely numerous and sensitive marsh islands and associated wildlife. Migratory waterfowl are numerous and vulnerable throughout the fall and winter months.

## **RESOURCES AT RISK**

### HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )

Marsh berms and island areas are a year-round priority. In fall and winter, this flooded island is a major area important to migratory waterfowl. Tule marshes of Latham Slough and Mildred Island levees are at risk.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

California black rail (CT)  
River otters, western pond turtle (CSC)  
Delta smelt (CT,FT), winter-run chinook salmon (CE,FE), catfish, striped bass  
tule  
Mason's Lilaeopsis (CR), California hibiscus

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B/T	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
E/L/O	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
B/T	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
L/O	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
E/L/O	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
E/L/O	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
L/O	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E/L/O	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

## 2-960 -A Mildred Island/Latham Slough - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 59 N

Longitude  
121 32 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

This site includes the flooded Mildred Island and adjacent Latham Slough from Empire Cut to Connection Slough.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

Shallow water. Tree snags inside flooded Mildred Island.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

### SITE STRATEGIES

#### Strategy 2-960.1

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### **Objective or Prevention Condition**

Prevent oil from entering marshes and waterways of this site by executing adjacent strategies.

#### **Technique Details**

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil coming from outside this site, deploy strategies for the following sites: Middle River: Bacon Island Reach (SF-965-A); Middle River: Mandeville Reach (SF-950-A), and Turner/Empire Cuts (SF-963-A).

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-960.1	0	0	0	0	0	0	0	0	0			

### LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Highway 4 east past Middle River to Bacon Island Road. Turn left on Bacon Island Road out to Middle River Follow along Lower Jones

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
2WD, TRUCK, 4WD,/LEVEE ROAD MAY BE IMPASSABLE WHEN WET

#### **WATER LOGISTICS:**

Access limitations: depth, obstructions: SHALLOW NEAR ISLAND, BUT DEEP CHANNELS EXIST

Boat Launching, Loading, Docking Marina services at Tiki Lagoon Resort Marina and Turner Cut Resort on Turner Cut are closest.  
and Services Available:

#### **FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:**

Staging at marinas or along Bacon Island Road. Tiki Lagoon Resort Marina and Turner Cut Resort on Turner Cut are closest.

#### **COMMUNICATIONS LIMITATIONS / PROBLEMS:**

X No Problems Radio Pager Cell phone

#### **ADDITIONAL COMMENTS**

SF-960-A







Mandeville  
Island

Medford  
Island

# Potential Site Protection Strategy Legend

Mildred Island/  
Site Name: Latham Slough

Site Number: SF-960-A

-  Sorbent Boom
-  Path of Oil
-  Curtain Boom
-  Skimmer
-  Shoreline Oil Recovery Area
-  Anchor



No Protection Strategy  
Shown:

For Site Protection - See:

- 2-950 Middle River: Mandeville Reach
- 2-965 Middle River: Bacon Island Reach
- 2-910 Old River: Quimby Island Reach
- 2-963 Turner Cut - Empire Cut

Bacon  
Island

Mildred  
Island  
(flooded)

McDonald Island

Without anchoring piles,  
seaweed and mangrove roots  
may  
pull the wing coars along  
which never intended to  
be on the shore.  
The sloughs and cuts are  
not maintained by a  
is unshored shoals and

Lower Jones Tract

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# Turner-Empire Cut - Site Summary

2-963 -A

County: San Joaquin  
USGS: Woodward Island

GRP: Latitude 37 59.7 N Longitude 121 27 W  
OSPR Map: 169 Last ACP Update: 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

Five miles of channel bordering south and east side of McDonald Island, from the Stockton Channel (R24) to Latham Slough (Mildred Island). Whiskey Slough forks off to southeast marking Turner from Empire Cuts. This is a deep water slough with ripped levees with pockets of emergent marsh. Berm and channel islands throughout its length are marshy and shrub scrub and have high ecological value. Currents can be strong in this slough.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

Marsh and riparian vegetation zones are of "A" concern year-round. Special Status Species: in Nov-Dec Delta smelt occur in modest numbers. Winter-run chinook are of moderate concern Oct 15 - May 31. One rare plant.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

Channel and berm islands have rich marsh/riparian communities. Levee community has been minimized by riprap. Aquatic community is typical of strong-current delta waters.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

Species present are those typical of riverine habitats: waterbirds, marsh and shorebirds. Islands are used by aquatic and semi-aquatic wildlife. This area has modest numbers of Delta smelt (F/CT) at some times. Wandering winter-run chinook (F/CE) smolts are of moderate concern mid Oct-May. Juvenile and adult striped bass and warm water fish are typical. Well developed emergent and rooted vegetation around the channel islands. The rare plant California hibiscus has been found several places in this site.

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Brenda Grewell	Ca Dept Water Resources	(916) 227-7520	(916) 227-7554
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
OEL	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
TB	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
E	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
E	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-963 -A Turner-Empire Cut - Site Summary

County: San Joaquin CHART 18661 Sacramento & San Joaquin River Latitude 37 59.7 N Longitude 121 27 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

Five miles of channel bordering south and east side of McDonald Island, from the Stockton Channel (R24) to Latham Slough (Mildred Island). Whiskey Slough forks off to southeast marking Turner from Empire Cuts.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Aerial high wire hazards. Underwater cables and pipelines. Slips, trips and falls on riprap. Poison oak on levees.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

## SITE STRATEGIES

### Strategy 2-963.1

(USCG Strategic Objective: 5,6 ) Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

At San Joaquin River: Stop oil from entering or leaving slough mouth.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

1) Set boom across slough mouth (400' Hboom). Anchor one boom end upstream near riprap bank of Roberts Isl. at R24. Anchor downstream boom end at the marshy beach of Acker Island, with substantial overlapping of Acker tip. Back with sorbent, leaving a trailing boom length to maintain seal during tidal vacillations.

2) Anchor exclusion boom across Turner Cut mouth from riprap levee of McDonald Isl easterly to Lost Isl Resort (200' Hboom.) Back with sorbent boom. Leave trailing boom ends to keep a tidal seal.

### Strategy 2-963.2

(USCG Strategic Objective: 5,6 ) Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

If oil is threatening from south, exclusion boom at junction with Latham Slough at Mildred Island.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Boom across Cut on a diagonal favorable to divert oil to south shore. Anchor boom near riprap levees on each side leaving trailing ends to maintain tidal seal. Back with second layer of boom or sorbent boom. Strong current here. Collect oil at south bank (Lower Jones Tract) if oil is concentrated sufficiently for collection.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-963.1	600			4/25 lb Danforth	300					2 PEOPLE/ 1	occasional checks	5,6
2-963.2	1200			5/25lb danforth + chain + line		portable & VT	1			4 PEOPLE/ 2	close watch	5,6

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Levee roads border this site on south and east are on Roberts Island and Lower Jones Tract and are accessible from Hwy 4 (Lower Jones road and McDonald Rd). North/west levee roads of McDonald Isl. are private. By water, site begins at Ship Channel light R24.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
Southeast levee roads paved

### WATER LOGISTICS:

Access limitations: depth, obstructions: deep water except around isles

Boat Launching, Loading, Docking and Services Available: Nearby marinas include: Tiki Lagun Resort, Turner Cut Resort, Whiskey Slough Resort, and others.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Roberts Island at Turner Cut/Stockton Channel junction is good major deployment site for this area. Adjacent levees and marinas are good for boom deployment and other response.







COMMUNICATIONS LIMITATIONS / PROBLEMS: X No Problems Radio Pager Cell phone

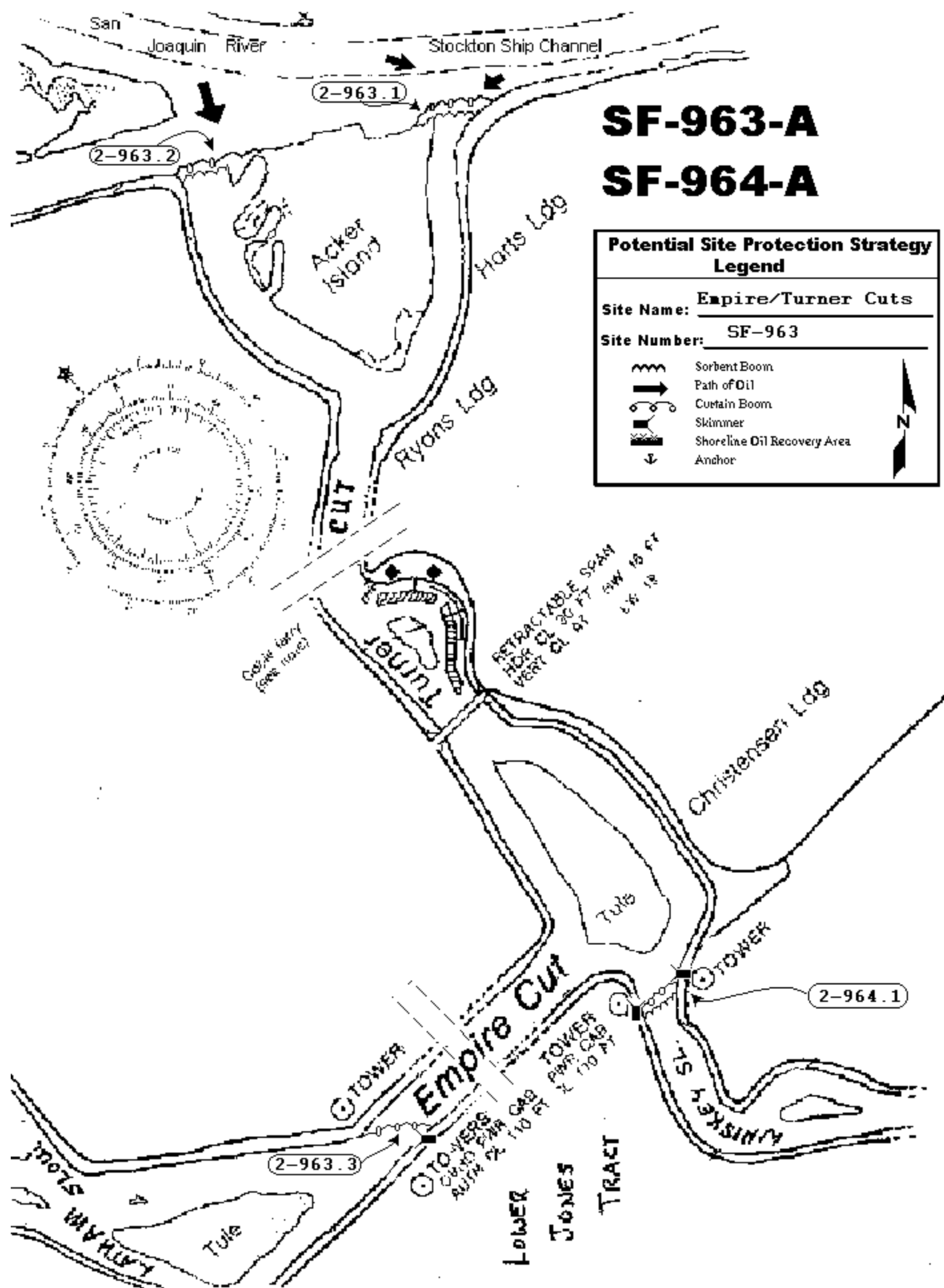
### ADDITIONAL COMMENTS



# SF-963-A

# SF-964-A

Potential Site Protection Strategy Legend	
Site Name:	Empire/Turner Cuts
Site Number:	SF-963
	Sorbent Boom
	Path of Oil
	Curtain Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor



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# Whiskey Slough - Site Summary

2-964 -A

**County:** San Joaquin  
**USGS:** Woodward Island

**GRP:** **Latitude** 38 58.2 N **Longitude** 121 28.5 W  
**OSPR Map:** 169 **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This dead-end slough extends from its mouth at junction of Turner Cut and Empire Cut about 3 miles to its terminus. A fairly narrow, shallow water slough with margins mostly ripped but with pockets of emergent marsh vegetations. There are several marshy channel islands. Snags and shallows are common in this low energy slough.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

Marsh and riparian vegetation zones are of "A" concern year-round. Special Status Species: in Nov-Dec Delta smelt occur in modest numbers. Winter-run chinook are of modest concern Oct 15 - May 31.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

The several channel islands are natural freshwater marshes. Aquatic community is typical for delta except that salmonids are not common.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Birds are riverine species: waterbirds and marsh birds.  
Other fauna include riverine and semiaquatic species common to marshy island habitats or those species which use or pass through disturbed and patchy habitat. Habitat may be suitable for western pond turtle.  
This area has modest numbers of Delta smelt (F/CT) at some times. Wandering winter-run chinook (F/CE) smolts are of moderate concern mid Oct-May. Juvenile and adult striped bass and warm water fish are typical.  
Emergent vegetation patches occur throughout.  
No sensitive plant species have been identified here.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation, Northwest Information Center, (Leigh Jordan, Sonoma State College (707-664-2494))

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
BL	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
OEL	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
TB	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
E	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
TB	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-964 -A Whiskey Slough - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
38 58.2 N

Longitude  
121 28.5 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This dead-end slough extends from its mouth at junction of Turner Cut and Empire Cut about 3 miles to its terminus.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Aerial hazard of high wires. Slips, trips and falls on riprap and steep levees. Regarding boat handling, beware of shallows, snags and mud bars. Poison Oak.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and muds.

## SITE STRATEGIES

### Strategy 2-964.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Stop oil from entering or leaving the slough by exclusion booming. Divert any oil to shore for collection and skimming.

### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Set boom across slough mouth. Anchor one boom end near Roberts Island riprap levee. Anchor other boom end diagonally up-slough on Lower Jones Tract levee, leaving a trailing boom length to maintain seal during tidal vacillations. Skim riprap closure if collection is opportune. Back with sorbent.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-964.1		400		3/15/DANFORTH	300	0/1				2 PEOPLE/ 1	occasional checks	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Key access to site is from southerly side via I-5 to Hwy 4 to Roberts Island Road to Upper Jones Tract Road. Private levee roads also border north side. Water access is from Turner or Empire Cuts from Ship Channel.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
levee roads good except wet

### WATER LOGISTICS:

Access limitations: depth, obstructions: Shallow and shallower, snags

Boat Launching, Loading, Docking Marinas nearby have wide range of facilities including launch, rental boats, fuel: Whiskey  
and Services Available: Slough Resort, Tiki Lagun Resort, Turner Cut Resort.

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Local marinas are possible area deployment sites and have most facilities including restaurants, water, toilets and some camping. If roads are passable, deploy from adjacent levees. Otherwise transport material by skiff.







### COMMUNICATIONS LIMITATIONS / PROBLEMS:

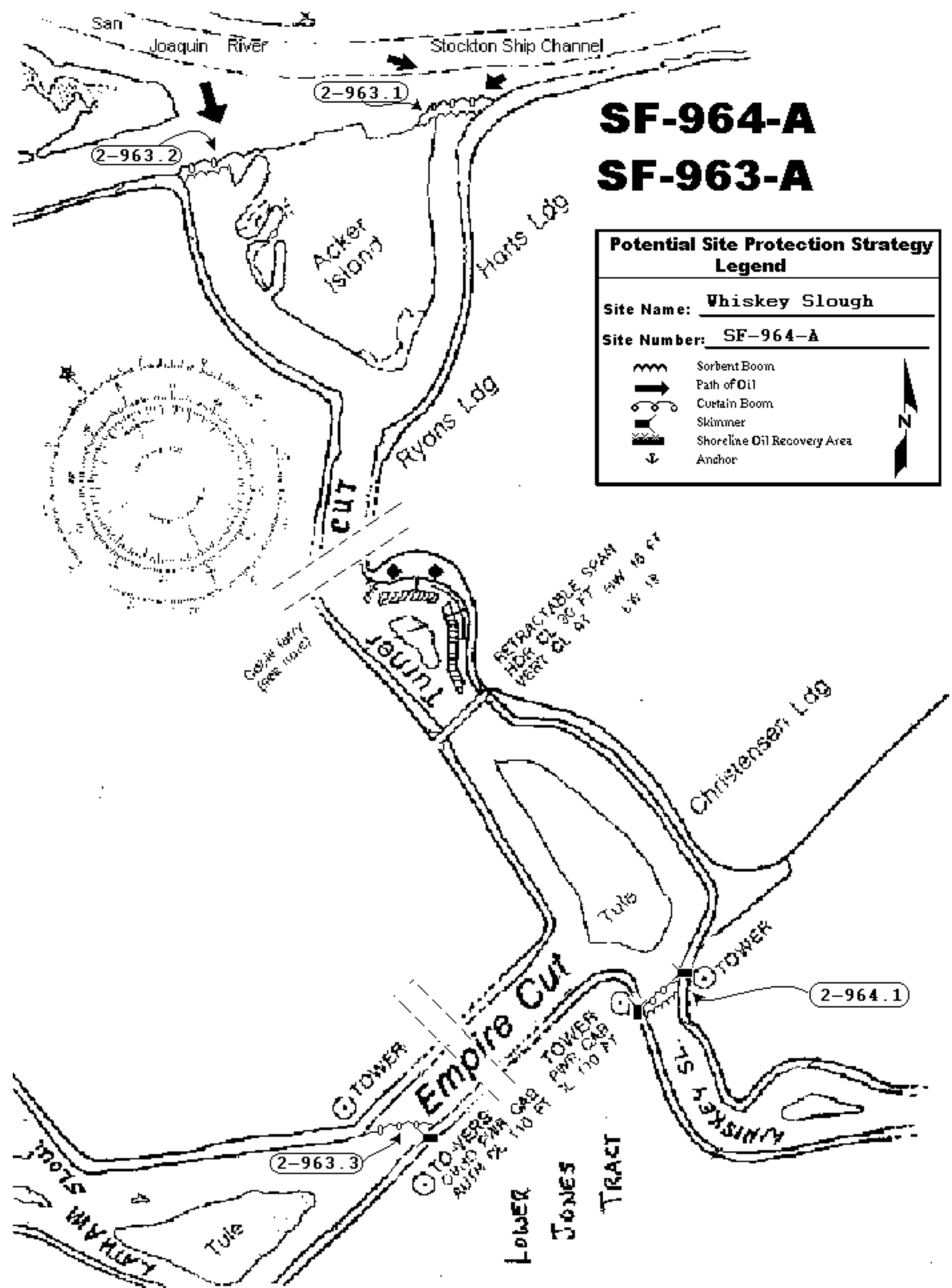
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### ADDITIONAL COMMENTS

# SF-964-A

# SF-963-A

Potential Site Protection Strategy Legend	
Site Name:	Whiskey Slough
Site Number:	SF-964-A
	Sorbent Boom
	Path of Oil
	Curtain Boom
	Skimmer
	Shoreline Oil Recovery Area
	Anchor



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# Middle River: Bacon Island Reach - Site Summary

2-965 -A

**County:** San Joaquin  
**USGS:** Woodward Island

**GRP:** 9      **Latitude** 37 57 N      **Longitude** 121 32 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site is the reach of Middle River from Connection Slough on the north, along the east side of Bacon Island, to SP Railroad Bridge on the south. This site has tule marshes and in-channel and berm islands. There are some riparian shrub-brush and woodland areas along levees. This area has been designated as a "Significant Natural Area" by the Delta Levees Master Environmental Assessment.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

A year-round "A" priority for protection due to the extremely numerous and sensitive marsh islands and wildlife.

## **RESOURCES AT RISK**

### **HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )**

Area is of major importance to migratory waterfowl. Riparian, woodland, and marsh habitats with associated wildlife are at risk.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

Bird species of interest are Swainson's hawk (CT) and California black rail (CT), egrets, and herons. Migratory waterfowl are numerous and vulnerable throughout the fall and winter months.

River otters occur here.

Fish species occurring here include Delta smelt (CT,FT), winter-run chinook salmon (CE, FE), striped bass, largemouth bass, catfish.

The rare plants occur here: Delta tule pea, Mason's Lilaeopsis (CR), and California hibiscus.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

There is an archeological site here. For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## **KEY SITE CONTACTS** - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
BT	Ed Littrell	Ca Dept. of Fish and Game	(916) 358-2924	(916) 358-2912
E/L/O	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
B/T	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
L/O	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
E/L/O	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
E/L/O	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
L/O	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E/L/O	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

# 2-965 -A Middle River: Bacon Island Reach - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 57 N

Longitude  
121 32 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site is the reach of Middle River from Connection Slough on the north, along the east side of Bacon Island, to SP Railroad Bridge on the south.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Shallow water west on in-channel islands. Bridge midway between Railroad Bridge and Mildred Island has low clearance.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats.

## SITE STRATEGIES

### Strategy 2-965.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

North end: Prevent oil from entering the river and contaminating the marshes

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil from the north; deploy strategy for Middle River: Mandeville Reach (SF-950-A). Deploy 600 ft of 18" deflection boom across channel of Connection Slough near low bridge. Deflect to Bacon Island levee.

### Strategy 2-965.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

South end: Prevent oil from entering the river and contaminating the marshes

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil from the south:

- 1) Deploy a series of deflection and exclusion booms near river divergence north of Railroad Bridge. Deploy 1000 ft and 350 ft of 18" curtain boom across the western and middle channels, respectively. Deflect to west levee (Bacon Island) for collection.
- 2) Deploy 3-200 ft. sections of 18" curtain boom in mid-channel north of Railroad Bridge; deflect to east levee (Lower Jones Tract), collecting against levee just south of boat docks.
- 3) Deploy 200 ft of small curtain ("swamp") boom across east channel entrance in front of pilings and floating "boxes", extending out from in-channel island.
- 4) Deploy 400 ft. of small curtain boom across north entrance of Railroad Cut - from Railroad berm north to levee.

## Table of Response Resources

strategy	hboom	swpbmxboom	Anchoring	sorb	Bb/skif	skimmers -No	special equip	deploy personnel	tending personnel	SO
2-965.1	600		8 / 25lb Danforth		1/1	SSS	1	4-5	with tidal change	5
2-965.2	2000	600	25 / 25lb Danforth		3/2	SSS	2	16-18	continuous	5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Highway 4 east past Middle River to Bacon Island Road. Turn left on Bacon Island Road out to Middle River. Follow along Lower Jones Tract levee.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
No restriction.

### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOW WATER NEAR ISLANDS

Boat Launching, Loading, Docking Marina services at Tiki Lagoon Resort Marina and Turner Cut Resort on Turner Cut east of site.  
and Services Available:

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging at Bullfrog Landing and levees on Lower Jones Tract, and levees on Bacon Island. At Tiki Lagoon Resort Marina and Turner Cut Resort on Turner Cut east of site.

COMMUNICATIONS LIMITATIONS / PROBLEMS: X No Problems Radio Pager Cell phone







ADDITIONAL COMMENTS

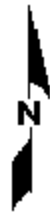


# Potential Site Protection Strategy Legend

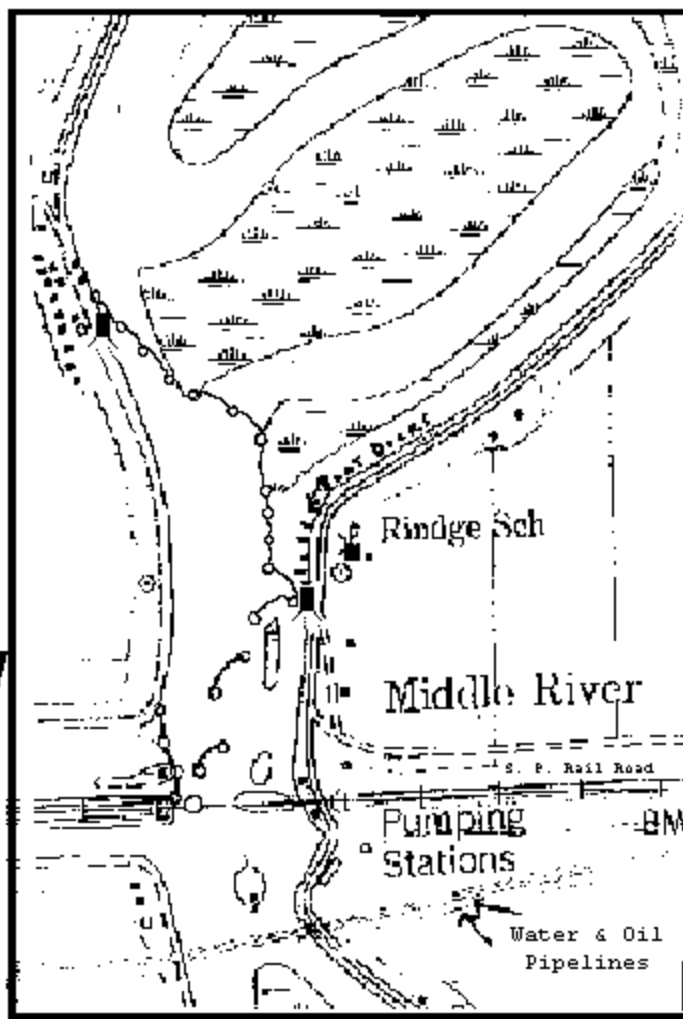
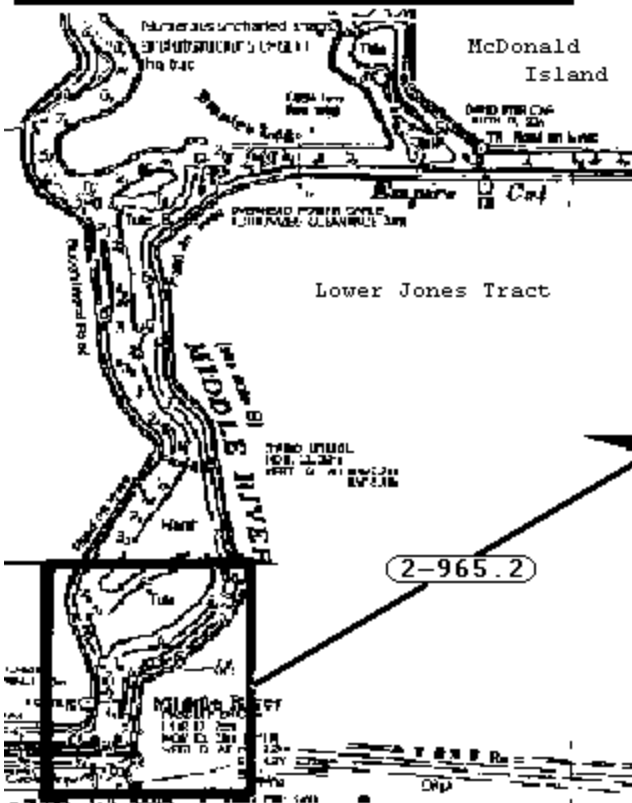
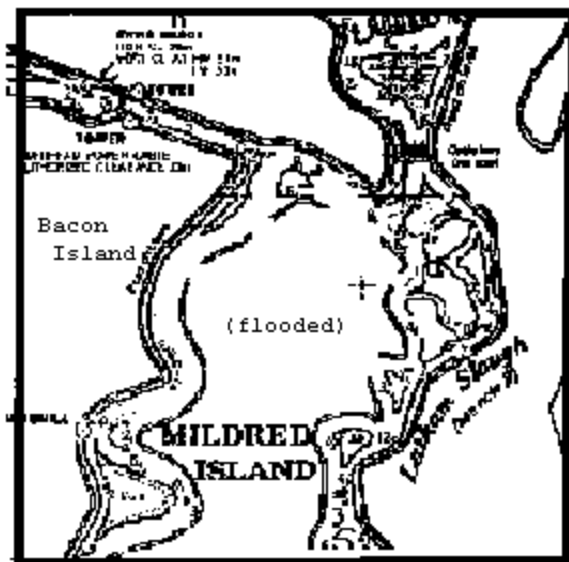
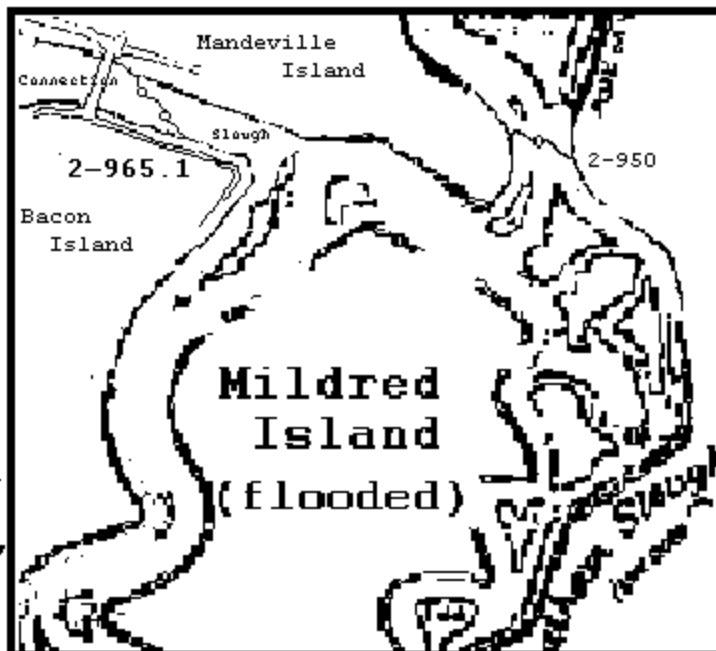
Middle River:  
Site Name: Bacon Island Reach

Site Number: SF-965-A

-  Sorbent Boom
-  Path of Oil
-  Curtain Boom
-  Skimmer
-  Shoreline Oil Recovery Area
-  Anchor



## SF-965-A



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# Middle River: Upper Jones Tract - Site Summary

2-970 -A

**County:** San Joaquin  
**USGS:** Holt & Woodward Island

**GRP:** 9      **Latitude** 37 54 N      **Longitude** 121 30 W  
**OSPR Map:**      **Last ACP Update:** 07/01/1996

## **SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)**

This site is the reach from SP railroad crossing on the north to the Highway 4 bridge on the south. A large river reach with several in-channel tule marsh islands. Bordering island levees are ripped with emergent marsh along the levee margins.

## **SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)**

"A" priority for protection all year.

## **RESOURCES AT RISK**

### **HABITATS AT RISK:(biological habitats including time of year when most sensitive and vulnerable )**

This site has large in-channel tule marsh, islands, and associated wildlife.

### **SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)**

The following species are found here: Swainson's hawk (CT), California clapper rail (CT), herons egrets, waterfowl, marsh birds, songbirds

River otter, beaver

Winter-run Chinook salmon (CE, FE) adults in winter, smolts in spring and summer.

## **CULTURAL and ARCHEOLOGICAL SENSITIVITIES**

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## **KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance**

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
/L/O	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
B/T	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
O/L	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
E/L/O	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
E/L/O	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
E/L/O	Alex Hildebrand	South Delta Water Agency	(209) 823-4166	
L/O	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E/L/O	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

# 2-970 -A Middle River: Upper Jones Tract - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 54 N

Longitude  
121 30 W

**SITE LOCATION: boundaries, landmarks, area to locate and delimit the site**

This site is the reach from SP railroad crossing on the north to the Highway 4 bridge on the south.

**HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site**

The low clearance of the bridge is a restriction to boat travel.

**POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS:** (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is two-fold: first, that oil will be transported though this site to other parts of the delta; and second, that marshy islands and margins will be come oiled. These marshy areas are sensitive and habitat to many sensitive species. There is always the concern of impacts from response and cleanup: trampling vegetation, disturbing wildlife, and tracking oil into marshes and mudflats

## SITE STRATEGIES

### Strategy 2-970.1

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

North End: prevent oil from contaminating in-channel marshes

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil from the north; deploy 1000 ft of 18" deflection boom near the UP railroad cut. Deflect oil away from islands towards levees for shore-based skimming and recovery. Boom off entrances to ski areas inside larger (200 ft). Fall back position is up river towards Woodward Island Ferry. Place deflection boom (18") in from of islands or outline with curtain or sorbent boom (800 ft).

### Strategy 2-970.2

(USCG Strategic Objective: 5 )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

#### Objective or Prevention Condition

South End: Prevent oil from contaminating in-channel marches.

#### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

For oil from the south; deploy 1500 to 2000 ft of 18" deflection boom across channel north of Trapper Slough confluence. Deflect to west side levee (Victoria Island) to skimmer or vacuum truck.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-970.1	2000			12-18 / 25lb Danforth		2 / 1	SSS		1	8-10		5
2-970.2	2000			12-18 / 25lb Danforth		2 / 1	SSS		1	12		5

## LOGISTICS

**DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)**

Key access is from Highway 4 east to Union Pacific at Middle River. Turn left on levee road across Trapper Slough to Bacon Island Road.

**LAND ACCESS LEVEL:** (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
all types on paved levee roads

#### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOW WATER NEAR ISLANDS

Boat Launching, Loading, Docking Launch skiffs from levee, larger vessels launch from Discovery Bay.  
and Services Available:

#### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging at Union Point or along levees.

#### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

#### ADDITIONAL COMMENTS







# SF-970-A

## Potential Site Protection Strategy Legend

**Middle River:**

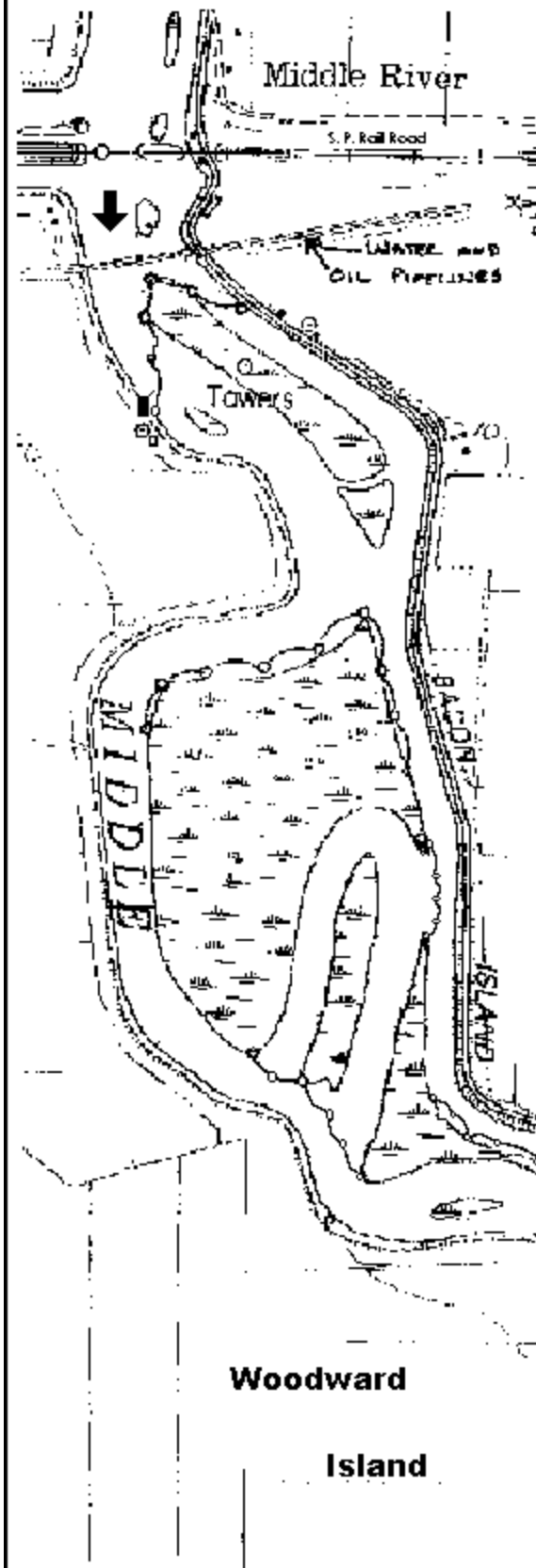
Site Name: **Upper Jones Tract Reach**

Site Number: **SF-970-A**

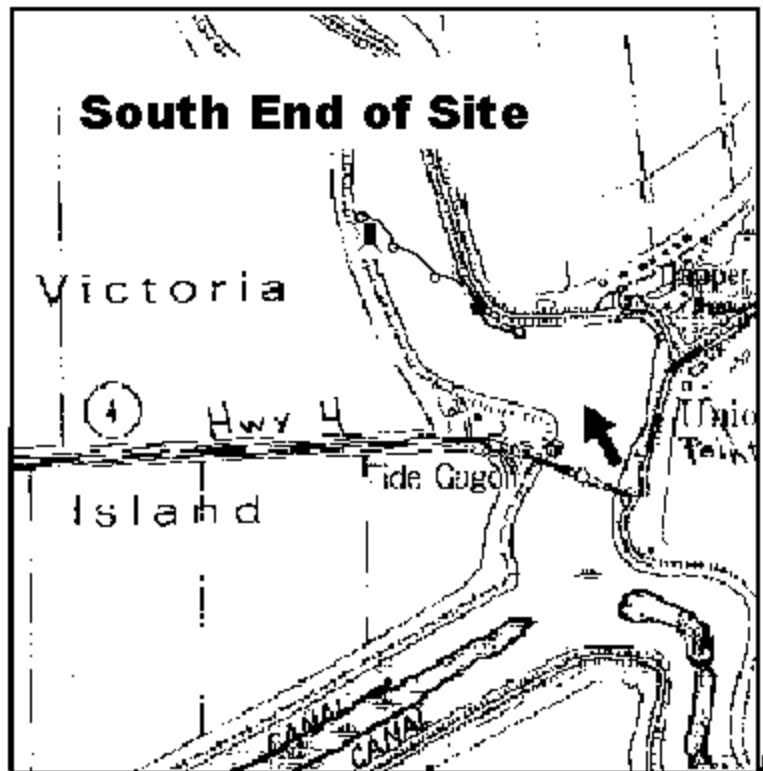
-  Sorbent Boom
-  Path of Oil
-  Curtain Boom
-  Skimmer
-  Shoreline Oil Recovery Area
-  Anchor



### North End of Site



### South End of Site



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# Trapper Slough - Site Summary

2-974 -B

County: San Joaquin  
USGS: Holt

GRP: 9      Latitude 37 53 N      Longitude 121 29 W  
OSPR Map:      Last ACP Update: 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

This site includes the entire enclosed freshwater marsh bounded by levees between Middle River and Whiskey Slough. It is a freshwater marsh with a lush growth of tules. It is connected to Middle River only by a pump. This site has been designated as a "Significant Natural Area" by the Delta Levees Master Environmental Assessment.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

"B" priority all year. ----- Although this is an extremely productive and sensitive marsh, it is not exceptionally vulnerable to a water-borne oil threat from Middle River because of its levied isolation and only connection via a pump. When considering threats from Hwy 4 traffic, the site should be considered an "A" priority.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

It is a tules and cattail freshwater marsh year round.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

This site is used by waterfowl, herons, egrets, and songbirds.  
River otters occur here.

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
B	Kent Nelson	Ca Dept of Water Resources	(916) 227-7581	
B	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
BT	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
O	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
E/L/O	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
L/E/O	Alex Hildebrand	South Delta Water Agency	(209) 823-4166	
O	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
BT	Bob Pine	USFWS, Endangered Species	(916) 979-2752	

## 2-974 -B Trapper Slough - Site Summary

County: San Joaquin CHART 18661 Sacramento & San Joaquin River Latitude 37 53 N Longitude 121 29 W

### SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site includes the entire enclosed freshwater marsh bounded by levees between Middle River and Whiskey Slough.

### HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

From water: the Highway 4 bridge.

### POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is that oil will be pumped into the slough from the river. Avoid trampling of marsh habitat during cleanup activities.

## SITE STRATEGIES

### Strategy 2-974.1

(USCG Strategic Objective: 5 ) Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Prevent oil from entering slough

### Technique Details

Check here means "No strategy diagram": ( ) Check here means "Contact CCC": ( )

Shut off pump and close all culverts leading to the slough from Middle River.

### Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-974.1	0	0	0	0	0	0	0	0	0			5

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Access is from Highway 4 east to Middle River at Union Point Marina.

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates)  
2WD, LG TRUCK, HVY EQ, 4WD, ATV, FOOT

### WATER LOGISTICS:

Access limitations: depth, obstructions: NONE

Boat Launching, Loading, Docking Larger boats can be launched from Discovery Bay Yacht Harbor  
and Services Available:

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging and boat docks at Union Point. Small skiffs from levees.

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

### ADDITIONAL COMMENTS

# No Strategy Diagram or Map



# Middle River: Union Island Reach - Site Summary

2-980 -A

County: San Joaquin  
USGS: Holt

GRP: 9 Latitude 37 53 N Longitude 121 28 W  
OSPR Map: Last ACP Update: 07/01/1996

## SITE DESCRIPTION: (general characterization of site - geomorphology, habitat, exposure, currents)

This site is the southern extreme reach of Middle River: from Highway 4 bridge at Victoria Canal south to confluence with the San Joaquin and Old Rivers. It is bounded by rip rap lined levees. River has several islands with riparian vegetation. Tule marsh berm islands and fringe marshes are also present along its length.

## SEASONAL and SPECIAL RESOURCE CONCERNS (seasonal issues, special status spp present, water intakes)

"A" priority for protection all year. Includes all marsh and riparian islands and fringe marsh habitats, associated wildlife and special status species.

## RESOURCES AT RISK

### HABITATS AT RISK: (biological habitats including time of year when most sensitive and vulnerable )

The habitats of concern are tule marshes and islands of riparian vegetation and the wildlife associated with these islands.

### SPECIES/COMMUNITIES AT RISK (Brief summaries including time of year when most sensitive/vulnerable)

The rare Swainson's hawk (CT) is found in this area. Also present are waterfowl, egrets, herons, songbirds.  
A variety of aquatic mammals are found here including river otter and beaver.  
Winter-run chinook salmon (CE, FE) adults are present during winter, smolts during spring and summer.  
In addition to the tule, rushes and riparian vegetation rare plants occur here including California hibiscus and Mason's Lilaepsis (CR).  
Willows, oaks, coyote bush, elderberry bush,

## CULTURAL and ARCHEOLOGICAL SENSITIVITIES

For specific information on historic or cultural resources in this area, contact the California Dept of Parks and Recreation - Office of Historic Preservation.

## KEY SITE CONTACTS - type: E-ntry/access; B-iological expertise; L-ogistical; C-ultural; T-rustee; or O-ther assistance

Type	Name	Organization	Phone	FAX
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E/L/O	Dan Nomellini	Central Delta Water Agency	(209) 465-5883	
B/T	Laurie Briden	Dept of Fish and Game Bay/Delta Studies	(209) 944-7800	
L/O	Ops Center State Water Project	Dept of Water Resources	(916) 574-2714	
E/L/O	Chris Neudeck	Mandeville, Victoria, & Union Isls Recl Dists	(290) 946-0268	
E/L/O	Tom Rosten	Rec Upper/Lower Jones, Terminous,	(209) 836-0829	
E/L/O	Alex Hildebrand	South Delta Water Agency	(209) 823-4166	
L/O	Ops Center Central Valley	US Bureau of Reclamation	(916) 979-3002	
B/T	Bob Pine	USFWS, Endangered Species	(916) 979-2752	
E/L/O	Gilbert Cosio	Webb Tract & Bacon Isl Reclamation	(916) 456-0253	

# 2-980 -A Middle River: Union Island Reach - Site Strategy

County: San Joaquin

CHART 18661 Sacramento & San Joaquin River

Latitude  
37 53 N

Longitude  
121 28 W

## SITE LOCATION: boundaries, landmarks, area to locate and delimit the site

This site is the southern extreme reach of Middle River: from Highway 4 bridge at Victoria Canal south to confluence with the San Joaquin and Old Rivers.

## HAZARDS and RESTRICTIONS - Air, Water & Ground - things to beware of when approaching or at site

Beware of shallow water and power lines.

## POTENTIAL OIL IMPACTS - CONCERNS/ ADVICE to RESPONDERS: (regarding sensitive species present, penetration into marshes

or sediments, burial, organism burrows, tidal channel spreading, watertable limitations, collateral impacts)

The concern is to minimize spread of oil to habitats up-current and down and to protect mid-channel islands by deflecting oil out of center channel to collection on riprap shoreline. There are marshy islands and margins which are sensitive habitat supporting sensitive species. Minimize response and cleanup impacts: disturbing wildlife, trampling vegetation, and tracking oil in to sediments.

## SITE STRATEGIES

### Strategy 2-980.1

(USCG Strategic Objective: )

Dates: SISRS Approved last tested ACP date  
11/06/1996 07/01/1996

### Objective or Prevention Condition

Deflect oil away from in-channel islands and marshes

### Technique Details

Check here means " No strategy diagram": ( ) Check here means "Contact CCC": ( )

a) Deploy 18" deflection boom in 100 ft legs in several locations near lower (northern) reach. Deflect oil from islands using "V" configuration (or chevron) at upstream end of island. Deflect oil to both levee shores.

b) As two channels form on either side of the island, deploy 100 ft sections of deflection boom from island to levee in both channels, downstream of "V" configuration.

c) Recover oil from levees with shoreside skimming system and/or vacuum trucks.

## Table of Response Resources

strategy	hboom	swpbm	xboom	Anchoring	sorb	Bb/skif	skimmers	-No	special equip	deploy personnel	tending personnel	SO
2-980.1	400			10 / 25lb Danforth		1 / 1	SSS		1	5-6		

## LOGISTICS

### DIRECTIONS: to site (by land and/or by water, to nearest launch ramp and are access permits required.)

Highway 4 east to Union Point at confluence of Middle River and Victoria Canal

LAND ACCESS LEVEL: (foot only, 2WD, large truck, 4WD, road limitations...seasonal, locked gates) all types.

### WATER LOGISTICS:

Access limitations: depth, obstructions: SHALLOW WATER NEAR ISLANDS

Boat Launching, Loading, Docking Launch skiffs from levees and larger boats from Discovery Bay and Services Available:

### FACILITIES, STAGING AREAS, POSSIBLE FIELD POSTS AND EQUIPMENT AVAILABLE:

Staging along levees or at Union Point Resort

### COMMUNICATIONS LIMITATIONS / PROBLEMS:

X No Problems Radio Pager Cell phone

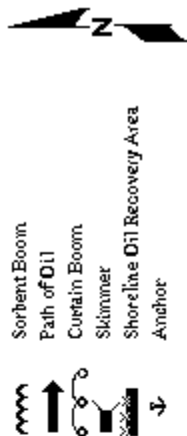
### ADDITIONAL COMMENTS

# Potential Site Protection Strategy

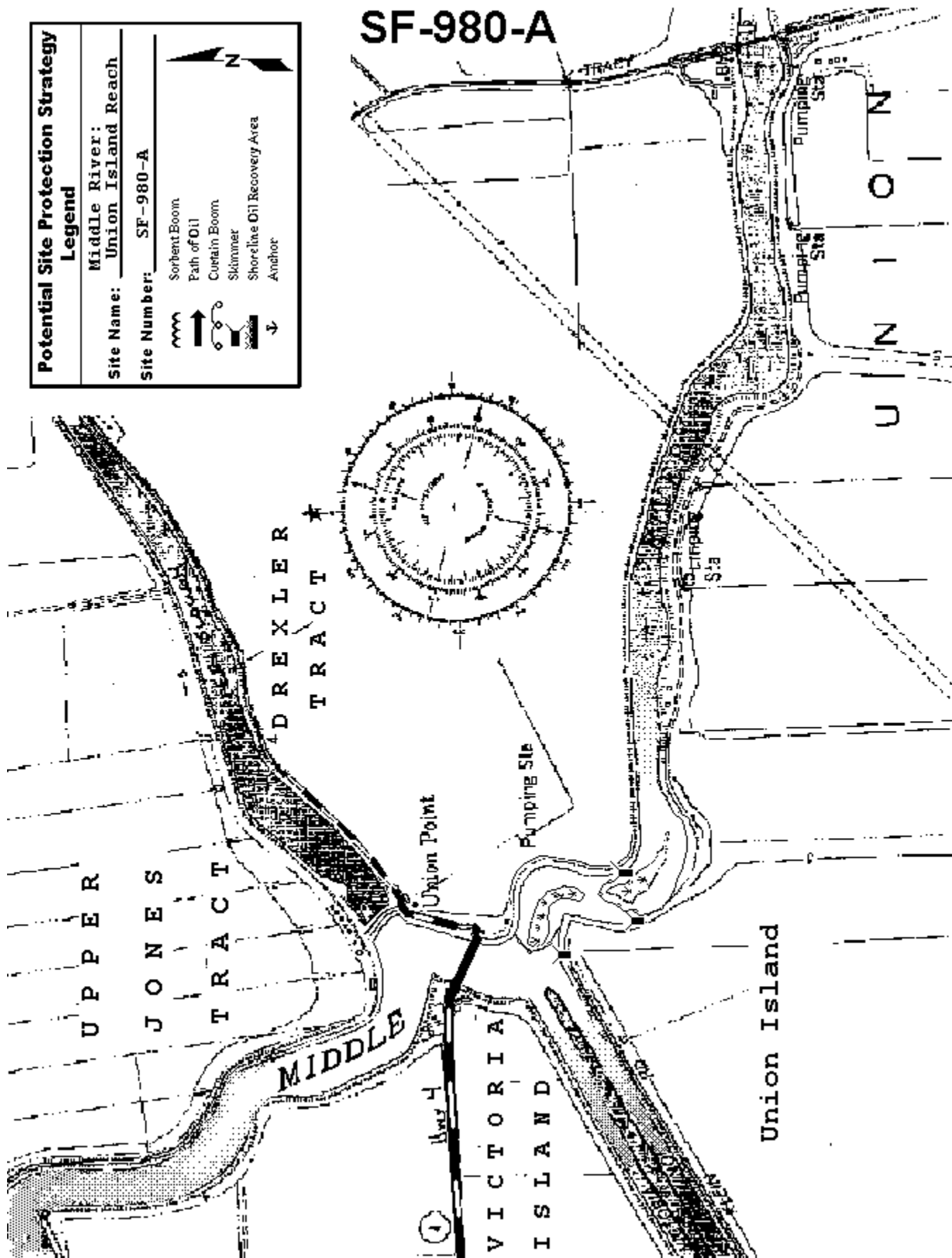
## Legend

Middle River:  
Union Island Reach

Site Name: SF-980-A



SF-980-A



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